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Cumhuriyet University Journal of Economics and Administrative Sciences– JEAS Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi–İİBD

Cilt -Volume 24 | Sayı -Issue 4 | Yıl-Year 2023

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Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi (İİBD) Sivas Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Fakültesi tarafından yılda dört defa çıkarılan bilimsel, hakemli ve elektronik ortamda okuyucuların erişimine açık bir dergidir. Yayın kurulumuz dergimizin 24. cildinin 4. sayısını (Ekim 2023) yayımlamanın mutluluğunu yaşamaktadır. Özellikle danışma kurulumuza, editör yardımcılarımıza, alan editörlerimize, dil editörlerimize ve ön inceleme ve dizgiden sorumlu çalışanlarımıza olmak üzere, yazarlarımıza, hakemlerimize ve dergimizin bu sayısına katkıda bulunan herkese verdikleri emekten ötürü en derin şükranlarımızı sunarız. Ayrıca şimdiye kadar dergimize katkıda bulunan ve destek sağlayan herkese teşekkür ediyoruz. Bir sonraki sayımız Ocak 2024'de yayımlanacaktır.

Bu sayımızda sıkı bir kör hakemlik ve editörlük sürecinden geçmiş 14 araştırma makalesi ve bir adet editöre mektup makalesi bulunmaktadır. Dergimizde yayımlanmakta olan çalışmalar ön inceleme, kör hakemlik süreci ve editöryal süreç olmak üzere üç önemli aşamadan geçmektedir. Hakemlik sürecinde her makale en az iki hakem tarafından incelenmiştir. Ayrıca, inceleme sürecine giren her makale iThenticate yazılımı yardımıyla intihal taramasından geçmektedir. Önümüzdeki sayılarımız için çalışmalarını dergimize göndermek isteyen yazarlarımıza çalışmalarını bize göndermeden önce mutlaka intihal yazılımından geçirmelerini öneriyoruz.

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Cumhuriyet University Journal of Economics and Administrative Sciences (JEAS) is a scientific, peer-reviewed and open-access journal published online on a quarterly basis. As the publication board of the journal, we are happy to publish our fourth issue in Volume 24 (October 2023). We express our deepest gratitude to everyone that contributed to this issue, particularly to the publication board, assistant editors, field editors, language editors, copyediting staff, authors and reviewers. We also thank everyone who has contributed to our journal and provided support so far. Our next issue will be published in January 2024.

In this issue, there are 14 research articles and 1 letter to the editor that went through a strict blind review and editorial process. Articles to be published in our journal go through three important phases: preview, blind review and editing. During the blind review process, every article is reviewed by at least two referees. Moreover, each article going through examination is checked for plagiarism using iThenticate. We suggest that our prospective authors scan their article using plagiarism software before they send it to our journal.

Prospective authors could upload their studies to http://esjournal.cumhuriyet.edu.tr/tr/ for our forthcoming issues. In addition, our journal aims to widen its pool of reviewers. In this respect, those who are interested in becoming a member of it or those who wish to contribute to our journal as a reviewer could send their CVs to iibfdergi@cumhuriyet.edu.tr. Reviewer certificates are sent through Dergipark. Therefore, those who wish to get a certificate should apply for it through Dergipark. We hope to reach you with higher quality and original studies in the next issue.

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A Research on The Effect of Istanbul Airport Technical Employees' Motivation on Organizational Commitment

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Research Article	ABSTRACT
History Received: 04/05/2023 Accepted: 21/07/2023	In order for organizations to achieve the goals they have set the commitment of individuals to their organization is very important. Organizations strengthen the loyalty of employees to the organization by respecting and accepting their culture, norms, and values, as well as employees' duties in the organization. Airport operators are called service operators. The most important factors which affect the quality of the services are the motivation of the employees and their commitment to the organization. Therefore, contemporary management approaches should investigate the factors that affect the motivation and organizational commitment of employees and find out the results. This study investigates the variables that influence the relationship between the motivation and organizational commitment of the technical electricity staff who work at Istanbul Airport. The method that was used in the research is the relational screening method which is one of the quantitative research methods. This screening method as "Motivation Scale" and "Organizational Commitment Scale" wereapplied for the technical staff of the Istanbul Airport between October 1, 2019 and November 10, 2019. It was found out that there are significant differences based on gender, marital status, age, education level, working time in the corporate, and position in terms of the motivation and commitment of the employees.

Keywords: Motivation, Organizational Commitment, Business Management

İstanbul Havalimanı Teknik Personelinin Motivasyonunun Örgütsel Bağlılık Üzerine Etkisine Yönelik Bir Araştırma

	02
	Örgütlerin belirledikleri hedeflere ulaşması için, bireylerin örgütüne bağlılığı çok önemlidir. Örgütler, çalışanların
Süreç	sadece kurumdaki görevlerinin yanı sıra onların kültürüne, norm ve değerlerine saygı duyması ve bu değerleri
	kabul etmesi ile çalışanların örgüte olan bağlılığını güçlendirir. Havayolu işletmeleri hizmet işletmesi olarak
Geliş: 04/05/2023	adlandırılır. Hizmet kalitesini etkileyen en büyük faktörler, calısanların motivasyonu ve örgütlerine olan
Kabul: 21/07/2023	bağlılıkları ile ilgilidir. Bağlılık seviyesi ne kadar yüksekse çalışanların yerine getirmek zorunda olduğu
	sorumlulukların kalitesi de o seviyede artmaktadır. Bir örgütün çalışanları, örgütlerine ne kadar çok bağlıysa
	bireyin is performansı da o kadar cok artar. Aksi takdirde bireyin performansı beklenen seviye olmaz ve isten
	ayrılma eğilimini ortaya çıkarır. Bu durum havalimanı gibi sürekli olarak aktif bir hizmet işletme için olumsuz
	sonuçlar doğurabilir. Bu nedenle çağdaş yönetim yaklaşımları çalışanların motivasyonu ve örgütsel bağlılıklarını
	etkileyen faktörleri araştırmak ve sonuçlarını öğrenmek zorundadır.
	Bu çalışmada, İstanbul İl'inde bulunan İstanbul Havalimanı'nda görev yapan elektrik teknik personelinin
	motivasyonu ve örgütsel bağlılıkları arasındaki ilişkiyi etkileyen değişkenler araştırılmıştır. Araştırmada kullanılan
	yöntem nicel araştırma yöntemlerinden biri olan ilişkisel tarama yöntemidir. Bu tarama yöntemi İstanbul ilinde
	bulunan İstanbul Havalimanı elektrik teknik personeline 01 Ekim 2019- 10 Kasım 2019 tarihleri arasında
	"Motivasyon Ölçeği" ve "Örgütsel Bağlılık Ölçeği" uygulanmıştır. Araştırmanın sonucunda, çalışanların cinsiyet,
	medeni durum, yaş, öğrenim durumu, kurumdaki çalışma süreleri ve kurumdaki pozisyon değişkenlerine göre
	anlamlı farklılıklar saptanmıştır.
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Introduction

Motivation is the most essential determinant of organizational performance. Therefore, it has been the most crucial element in the organization's efficiency. Motivation ensures that the organization's employees start their work willingly and carry out their tasks efficiently. Motivation consists of two structures: intrinsic and extrinsic motivation. Intrinsic rewards are defined as the rewards that come naturally to individuals from their birth, while rewards provided by others are defined as extrinsic rewards. Activities such as the sense of achievement and the fulfillment of personal goals represent intrinsic rewards, whereas gifts, bonuses, etc., provided by the employer to employees represent extrinsic rewards. The main purpose of the rewards is the satisfaction of organizational employees. In the past, the importance of extrinsic motivation was greater, but in today's conditions, the significance of intrinsic motivation has increased considerably (Akkoyunlu and Soylu, 2010).

Motivation emerges based on the needs of employees. Top executives can identify and analyze various needs of employees to provide solutions accordingly. Creating an effective job environment for employees is only possible through this approach (Özdemir, 2007, p. 78).

It is essential to examine the factors that increase employees' productivity and motivate them. The most popular among these factors is motivation, which revitalizes employees' desires (Akyar, 2013, p. 15). Various discomforts can arise in individuals, driven by unpredictable wishes and desires. If these discomforts are eliminated, employees' satisfaction levels increase. Measuring or discovering the hidden emotions within individuals is a challenging task. Revealing these concealed emotions becomes possible through various incentives and environmental conditions (Eren, 2017, p. 531).

According to the dictionary meaning, an organization is a unity formed by institutions or individuals coming together with a common purpose or action. Another meaning is that it refers to all the sub-sections of an organization with a broad or extensive field of work. According to the dictionary meaning, loyalty signifies being attached with love and respect, implying an intimate closeness. Organizational commitment, on the other hand, is the level of psychological attachment of members of organizations established for one or more specific purposes. Internalizing organizational goals and values is a condition observed in organizational commitment. The desire of individuals to stay in the organization, their efforts, and their preparedness for the success of the organization are understood through this internalization (Saruhan and Yıldız, 2014, p. 462).

Organizational commitment refers to the approach that evaluates employees' dedication to the organization. It encompasses not only emotional motivation but also the rewards and gains concerning employees' commitment to their organizations. Employees evaluate all the elements that affect their relationship with the organization, and as a result, a mutual interaction process begins. This situation constitutes the level of organizational commitment (Balcı, 2003, p. 27-28).

One of the strongest emotions that employees feel is organizational commitment. The higher the level of commitment, the higher the quality of the responsibilities that employees are obligated to fulfill (Balay, 2000, p. 12).

One of the most important goals of organizations is the loyalty and harmonious cooperation of individuals toward the organization. The responsibilities assigned to individuals will also contribute to their social relationships. Organizational continuity is ensured when individuals work together in an organized manner and are aware of their responsibilities. For the orders and tasks given to employees in the organization to be embraced, employees' level of organizational commitment needs to be strong. In such a case, employees will perform organizational citizenship duties voluntarily. They will go above and beyond expectations and demonstrate their determination by putting forth exceptional efforts. Employees willingly conforming to expectations indicates high motivation, making the need for supervision unnecessary (Balay, 2000, p. 3).

The perspective on work relationships is often evaluated in terms of the productivity aspect of organizational commitment. Organizational efficiency is directly related to employees' high commitment to the organization, positive attitudes, and behaviors. It also correlates with employees' focus on their work, happiness in the workplace, and the effort they put into their tasks (Karahan, 2008).

The commitment of individuals to the organization is crucial for organizations to achieve the goals they have set. Organizations strengthen the commitment of employees to the organization by respecting and accepting their culture, norms, and values, as well as their duties in the institution. It is easier to manage and direct the employees at the organizational level in this case. Employees need to affiliate with the organization in order to prioritize organizational goals. When affiliation occurs, employees are ready to make any sacrifice for the organization. The main feature of organizational productivity is to explain this situation (Eren, 2017, p. 555). It is essential to increase the productivity of employees and to examine the factors that motivate them. The most popular of these phenomena is the motivation that stimulates the wishes of the employees (Akyar: 15). There can be various ailments people feel caused by unpredictable desires. If these ailments are eliminated, the satisfaction level of the employees increases. It is very difficult to measure or discover the hidden emotions that people feel. These hidden feelings can only emerge with various incentives and environmental conditions (Eren, 2011:531). The motivation of employees in businesses significantly affects organizational commitment.

This study was conducted to investigate the effect of motivation of electrical technical personnel working at Istanbul Airport in Istanbul Province on organizational commitment.

Method

A relational research method was used in this study. The relational research method is a type of quantitative research method. By this method, the scientific significance of the relationship between the motivation and organizational commitment of the electrical technical personnel working at Istanbul Airport and how the demographic characteristics of the personnel affect motivation and organizational commitment has been investigated.

The relational screening model is applied while investigating the relationships between multiple variables. In this model, while investigating the relationships between the variables, the direction and quality of the relationships are also compared. As a result, the effects of these relations on each other and the causes are investigated (Karasar, 2007: 77).

Population and Sample

The field of the research consists of the electrical technical personnel at the Istanbul Airport. Demographic characteristics-gender of participants is given in Table 1 in detail.

In the literature review carried out to reach sample sufficiency, the sample sufficiency number of the questionnaires to be made on 400 people was determined as 50. Accordingly, the sample size was reached by providing feedback to all of the 50 questionnaires distributed.

86% of the experimental subjects participating in the study are male and 14% are female. As a result of the research, it has been found out that the number of male employees is higher than the electrical technical personnel working at Istanbul Airport.

60% of the experimental subjects participating in the study are married, 34% are single, and 6% are divorced or living separately. It has been seen that the number of married employees is approximately twice as much as the number of single employees.

It is seen that 34% of the experimental subjects participating in the research are in the age range of 20 to 30, 48% to 31 to 40, 14% to 41 to 50, and 4% to 50 and over. It has been found out that the electrical technical personnel of Istanbul Airport are mainly between the ages of 31-40, and the number of employees aged 50 and over is low.

It is seen that 2% of the experimental subjects participating in the research are primary school graduates, 28% high school graduates, 62% university graduates, and 8% postgraduate degrees. It has been determined that the number of university graduates must be high in order to work in the aviation sector.

It has been determined that 98% of the experimental subjects participating in the research have worked in the corporation between 1-7 years and 2% between 15-21 years.

It has been determined that 16% of the experimental subjects participating in the research work as employees, 12% as civil servants, 20% as contracted personnel, and 52% as corporate personnel.

Table 1. Demographic Characteristics- Gender of Participants

Çizelge 1. Demografik Özellikleri- Katılımcıların Cinsiyeti		
Gender	Frequency	Percent (%)
Male	43	86,0
Female	7	14,0
Marital Status	Frequency	Percent (%)
Married	<mark>30</mark>	<mark>60,0</mark>
Single	17	34,0
Divorced/ Seperated	3	6,0
Age	Frequency	Percent (%)
20-30	17	34,0
31-40	24	48,0
41-50	7	14,0
50 and Above	2	4,0
Education Status	Frequency	Percent (%)
Primary Education	1	2,0
High School Education	14	28,0
Undergraduate Degree	31	62,0
Postgraduate Degree	4	8,0
Working Life	Frequency	Percent (%)
1-7 Years	49	98,0
8- 14 Years	0	0
15- 21 Years	1	2,0
21 Years and Above	0	0
Job Title	Frequency	Percent (%)
Employee	8	16
Civil Servant	6	12
Contracted Personnel	10	20
Corporate Personnel	26	52

Data Collection Tool

Findings

Two types of data collection tools have been used in the research; the organizational commitment scale and the motivation scale. In addition, there are 6 questions about the demographic characteristics of the respondents. The 5-point Likert scale was used within the scope of the research. The answer options are presented as; 5: I strongly agree, 4: I agree, 3: undecided, 2: I disagree, and 1: I strongly disagree. The survey, which consists of a total of 72 questions, is organized on 4 pages.

Analysis of Data

The data obtained from the scales were analyzed using the SPSS Statistics 25.0 program. In our study, the organizational commitment scale developed by Allen and Meyer was used. In addition, individuals' commitment to their organizations has been defined as a structure consisting of 3 components related to each other (emotional commitment, continuance commitment, and normative commitment). There are a total of 18 questions on the scale. 1, 2, 3, 4, 5, 6 the third questions; with emotional commitment, 7, 8, 9, 10, 11, the 122nd questions are related to continuation commitment and the 13th, 14th, 15th, 16th, 17th, and 18th questions are related to normative commitment. As a result of the studies conducted in Türkiye, the adequacy and reliability of the organizational commitment scale have been proven and the reliability coefficient of the scale has been found to be a=0.749. In addition, affective commitment has been 0.62, continuance commitment has been 0.71, and normative commitment has been 0.72 (Üstüner, 2009). In the competence and reliability analysis conducted in the research; The Cronboch Alpha organizational commitment scale had a value of 0.82, continuous commitment value of 0.76, emotional commitment value of 0.86 and normative commitment value of 0.72.

In the competence and reliability analysis conducted in the research, the value of Cronboch Alpha organizational commitment scale was found to be 0.82, continuous commitment value was found to be 0.76, emotional commitment value was found to be 0.86, and normative commitment value was found to be 0.72.

For the motivation scale, questions were asked about the factors affecting the motivation of the respondents. In the reliability analysis of this survey, which consists of a total of 48 questions, the Cronboch Alpha value was found to be 0.93. This value also shows that the scale is within the limits of validity and reliability.

Statistical information about the answers given to the "motivation" and "organizational commitment" questionnaires is included in this section. In this context, the descriptive analysis of the motivation scale is given in Table 2.

According to the result obtained from the research, with the highest weighted average value of 4.02, "I believe that personal development training should be organized as well as professional training." Is the expression. The percentage of respondents' answers for this statement is as follows: 2% strongly disagree, 6% disagree, 14% undecided, 44% agree and 34% strongly agree.

According to another result obtained from the descriptive analysis of the motivation scale in the research, the values with the lowest weighted average are 10. These are the survey questions 7, 9, 10, 21, 24, 25, 26, 30, 31 and 44.

On the other hand, In this context, the descriptive analysis of the organizational commitment scale is given in Table 3. According to the results obtained from the research, the values with the highest weighted average are 10. These are the survey questions; 1, 2, 3, 4, 5, 6, 13, 16, 17, and 18.

According to another result obtained from the research, the values with the lowest weighted average are 8. These are the survey questions 7, 8, 9, 10, 11, 12, 14, and 15.

Factor Analysis

In the research, factor analysis has been applied to determine the basic dimensions of the motivation and organizational commitment scales by gathering the question or expression groups under the same factor so that the complexity of the research can be more understandable. In this context, the factor analysis of the motivation scale is given in Table 4. Since the Sig (p) value of the motivation scale was p<0.000, it was determined that it was suitable for factor analysis.

On the other hand, The Kaiser-Meyer-Olkin sample adequacy test result was calculated as 0.067, and analysis was deemed appropriate. The Table 5. shows that the motivation scale consists of 7 dimensions. It was also shown that 81.04% of the variance was explained by the dimensions.

Table 6 shows the factor analysis of organizational commitment scale. Because the Sig (p) value of the organizational commitment scale was p<0.000, it was determined that it was suitable for factor analysis. The result of Kaiser-Meyer-Olkin sample adequacy test was calculated as .000 and analysis was deemed appropriate. Variance of organizational commitment scale is given in Table 7. It shows that the organizational commitment scale consists of 4 dimensions. It was also shown that 66.00% of the variance was explained by the dimensions.

Table 2. Descriptive Analysis of Motivation Scale Çizelge 2. Motivasyon Ölçeğinin Betimsel Analizi

PFSTAO		(1)SD	(2)Disagree	(3)Neutral	(4)Agree	(5)SA	Avarage	SD
1. Managers pay attention	Fi	5	12	12	18	3	3,04	1,0
what employees think.	%	10,0	24,0	24,0	36,0	6,0		
2. I am satisfied with the	Fi	1	4	16	21	8	3	,0
management approach of my	%	2,0	8,0	32,0	42,0	16,0		
superiors.								
3. In general, my work is	Fi	2	7	13	25	3	3	,0
appreciated.	%	4,0	14,0	26,0	50,0	6,0		

4. Work in my unit is	Fi	3	10	17	19	1	3	,0
distributed fairly among	%	6,0	20,0	34,0	38,0	2,0		
employees.			_				-	
5. The decisions are taken by	Fi	2	5	11	22	10	3	1,042
the persons concerned.	% Fi	4,0	10,0	22,0	44,0	20,0	2	1.0
6. I rarely encounter bureaucratic obstacles in my	FI %	9	8	13 26,0	14	6	3	1,0
work.	70	18,0	16,0	20,0	28,0	12,0		
7. I have to work overtime	Fi	5	24	10	9	2	2	1,032
because the people I work	%	10,0	48,0	20,0	18,0	4,0	2	1,052
with are not competent.	/0	10,0	10,0	20,0	10,0	1,0		
8. Many rules and procedures	Fi	4	12	10	19	5	3	1,0
make work difficult to do.	%	8,0	24,0	20,0	38,0	10,0		<i>,</i>
9. Those who do their job well	Fi	9	7	24	9	1	2	1,031
in the institution I work for	%	18,0	14,0	48,0	18,0	2,0		
have a fair chance of								
promotion.								
10. I place more emphasise on	Fi	15	8	8	9	10	2	1,0
monetary rewards than moral	%	30,0	16,0	16,0	18,0	20,0		
rewards.								
11. The work I do is important	Fi	1	2	1	24	22	4	,0
to my institution.	%	2,0	4,0	2,0	48,0	44,0		
12. The workload can be	Fi	4	12	4	19	11	3	1,0
completed within working	%	8,0	24,0	8,0	38,0	22,0		
hours. 13. My knowledge is sufficient	Fi	0	4	3	18	25	4	0
for the work I do.	гі %	,0	4 8,0	5 6,0	36,0	25 50,0	4	,0
14. My experience is sufficient	Fi	,0 0	2	3	30,0 17	28	4	,0
for the work I do.	%	,0	4,0	6,0	34,0	56,0	4	,0
15. The chance of being	Fi	,0 4	5	17	16	8	3	1,0
promoted in my work is really	%	8,0	10,0	34,0	32,0	16,0	5	1,0
low.		0,0	20)0	0.1,0	02,0	20)0		
16. My workplace, my	Fi	5	10	2	26	7	3	1,0
supervisors, my friends and	%	10,0	20,0	4,0	52,0	14,0		
my job cause me stress.								
17. I have good	Fi	1	1	2	26	20	4	,0
communication with my	%	2,0	2,0	4,0	52,0	40,0		
friends at the facility where I								
work.								
18. I love my collegues.	Fi	1	2	4	27	16	4	,0
	%	2,0	4,0	8,0	54,0	32,0	-	
19. There is enough	Fi	6	7	13	19	5	3	1,0
communication between	%	12,0	14,0	26,0	38,0	10,0		
units.		3	5	9	25	8	2	1.060
20. I can express my feelings and thoughts appropriately at	Fi %	5 6,0	5 10,0	9 18,0	25 50,0	° 16,0	3	1,069
my workplace.	/0	0,0	10,0	10,0	50,0	10,0		
21. I think I have equal rights	Fi	12	5	13	18	2	2	1,0
with other employees.	%	24,0	10,0	26,0	36,0	4,0	2	1,0
22. I know and understand my	Fi	1	3	11	28	7	3	,0
colleagues adequately.	%	2,0	6,0	22,0	56,0	14,0	-	/-
23. I think there are	Fi	4	16	8	11	11	3	1,0
problematic friends at my	%	8,0	32,0	16,0	22,0	22,0		<i>,</i>
workplace.								
24. There are many	Fi	10	24	11	4	1	2	,0
discussions among my	%	20,0	48,0	22,0	8,0	2,0		
colleagues with whom we								
work.								
25. There are consideration	F 1	16	15	9	9	1	2	1,0
	Fi						2	-/-
for co-employees in my work place and they are	F1 %	32,0	30,0	18,0	18,0	2,0	2	_,-

remembered on special								
occasions. (birthdays, etc.)	- :	10	12	0	1.4	2	2	1.0
26.There are practices in the institution that I am not	Fi %	12 24,0	12	9	14 28,0	3 6,0	2	1,0
happywith, I have the	70	24,0	24,0	18,0	28,0	0,0		
opportunity to complain and								
find fair solutions.								
27. Picnics, meals and outings	Fi	24	13	4	4	5	2,06	1,0
are organized.	%	48,0	26,0	8,0	8,0	10,0	_,	_,.
28. I do not find the social	Fi	7	4	8	14	17	3	1,0
activities in the institution	%	14,0	8,0	16,0	28,0	34,0		,
sufficient.			,		,	,		
29. I am proud of the job I do.	Fi	3	0	9	22	16	3	1,029
	%	6,0	,0	18,0	44,0	32,0		
30. The salary I receive for my	Fi	15	14	12	7	2	2	1,0
job is sufficient.	%	30,0	28,0	24,0	14,0	4,0		
31. I think the permission	Fi	9	10	15	10	6	2	1,0
possibilities are sufficient.	%	18,0	20,0	30,0	20,0	12,0	_	
32. The training opportunities	Fi	5	7	12	20	6	3	1,0
provided at my workplace are	%	10,0	14,0	24,0	40,0	12,0		
satisfactory.	F :	6	10	4	21	c	2	1.0
33. Adequate training opportunities are provided for	Fi %	6 12,0	13		42,0	6	3	1,0
the department I work in.	70	12,0	26,0	8,0	42,0	12,0		
34. I believe that in addition to	Fi	1	3	7	22	17	4,02	,0
vocational training, personal	%	2,0	6,0	, 14,0	44,0	34,0	4,02	,0
development training should	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2,0	0,0	1,0	11,0	01,0		
be organized								
35. There is a lack of	Fi	11	6	12	9	12	3	1,0
equipment in the workplace.	%	22,0	12,0	24,0	18,0	24,0		
36. The lighting of my work	Fi	1	1	4	26	18	4	,0
place is adequate.	%	2,0	2,0	8,0	52,0	36,0		
37. The ventilation of the	Fi	1	4	5	24	15	4	,0
working environment is	%	2,0	8,0	10,0	48,0	32,0		
sufficient.								
38. Toilets in my workplace	Fi	9	10	10	10	11	3,08	1,0
are not suitable for health and	%	18,0	20,0	20,0	20,0	22,0		
hygiene.	_ .		2	10	47		2	0
39. I feel sense of belonging to	Fi	1	2	19	17	11	3	,0
this institution and I am proud to work at this workplace.	%	2,0	4,0	38,0	34,0	22,0		
40. I think my institution	Fi	0	0	3	20	27	4	,0
benefits from my work	%	,0	,0	5 6,0	40,0	54,0	4	,0
41. I love the work I do.	Fi	3	,0 0	4	19	24	4	1,036
	%	6,0	0,0	8,0	38,0	48,0		1,000
42. I am able to receive	Fi	2	2	8	28	10	3	,0
appropriate health benefits at	%	4,0	4,0	16,0	56,0	20,0		,
the institution.		,	,	,	,	,		
43. I am satisfied with the	Fi	2	6	5	30	7	3	,0
security of my job.	%	4,0	12,0	10,0	60,0	14,0		
44. I think that the lunch	Fi	13	16	8	8	5	2	1,0
benefits are not adequate.	%	26,0	32,0	16,0	16,0	10,0		
45. There is no flexibility in	Fi	8	8	11	17	6	3	1,0
work hours.	%	16,0	16,0	22,0	34,0	12,0		
46. I think the work	Fi	2	6	8	25	9	3	1,042
environment is clean enough.	%	4,0	12,0	16,0	50,0	18,0	2	1.0
47. I think that the physical	Fi	6	8	12	16	8	3	1,0
conditions are sufficient for	%	12,0	16,0	24,0	32,0	16,0		
the disabled people. 48. I think there should be a	Fi	6	7	8	12	17	3	1,0
kindergarten in the institution.	гі %	0 12,0	, 14,0	° 16,0	24,0	34,0	5	1,0
		12,0		10,0				e vel

* Please indicate your views on the following statements by ticking (x) the appropriate option.(PFSTAO), (1) Strongly Disagree(SD), (5) Strongly Agree(SA), Standard Deviation(SD),

Çizelge 3. Örgütsel Bağlılık Ölçe	eğini							
PFSTAO		(1)SD	(2)Disagree	(3)Neutral	(4)Agree	(5)SA	Avarage	SD
1. I want to spend the rest of	Fi	5	5	17	13	10	3	1,0
my professional life in the	%	10,0	10,0	34,0	26,0	20,0		
institution where I work.			_	4.0	4.0		-	4 997
2. I really feel that the	Fi	1	5	10	19	15	3	1,037
problems of the organization	%	2,0	10,0	20,0	38,0	30,0		
I work for are my own.		2	_		42	45	2	4.0
3. I feel that I belong to the	Fi	3	5	14	13	15	3	1,0
organization I work for.	%	6,0	10,0	28,0	26,0	30,0	2	4.0
4. I feel "emotionally	Fi	2	8	14	15	11	3	1,0
committed" to the	%	4,0	16,0	28,0	30,0	22,0		
organization I work for.	с:	c	0	10	10	7	2	1.0
5. I see myself as "part of the	Fi	6	8	10	19	7	3	1,0
family" in the institution I	%	12,0	16,0	20,0	38,0	14,0		
work for.		2	10	12	1.4	10	2	1.0
6. The institution I work for	Fi	3	10	13	14	10	3	1,0
means a lot to me.	%	6,0	20,0	26,0	28,0	20,0	2	1.0
7. I currently work in this	Fi	14	14	11	5	6	2	1,0
institution out of necessity	%	28,0	28,0	22,0	10,0	12,0		
rather than my own volition.		12	10	0	10	C	2	1.0
8. I am not in a position to	Fi	13	13	8	10	6	2	1,0
leave my current institution	%	26,0	26,0	16,0	20,0	12,0		
even if I wanted to.	с:	10	1.4	7	C	7	2	1.0
9. My life would be turned	Fi	16	14	7	6	7	2	1,0
upside down if I left my	%	32,0	28,0	14,0	12,0	14,0		
current institution.	с:	10	15	10	7	2	2	1.0
10. I do not think about	Fi	12	15	13	7	3	2	1,0
leaving the institution lwork	%	24,0	30,0	26,0	14,0	6,0		
for cause I do not have many								
alternatives.	с;	7	11	16	8	8	2	1.0
11. I have given so much of	Fi %	, 14,0					2	1,0
myself to the institution I work for that I can not think	70	14,0	22,0	32,0	16,0	16,0		
about leaving.								
12. If I leave the institution,	Fi	16	19	8	3	4	2	1,0
options for finding another	%	32,0	38,0	8 16,0	5 6,0	4 8,0	2	1,0
job are limited.	70	52,0	56,0	10,0	0,0	0,0		
13. I do not feel obligated to	Fi	4	5	20	18	3	3	,0
continue working at this	%	4 8,0	10,0	40,0	36,0	5 6,0	5	,0
institution.	70	0,0	10,0	40,0	30,0	0,0		
14. Even if there is a benefit,	Fi	5	12	18	13	2	2	1,035
I think it is not right to leave	%	10,0	24,0	36,0	26,0	4,0	2	1,000
my institution.	70	10,0	24,0	30,0	20,0	4,0		
15. I would feel guilty if I left	Fi	21	10	11	3	5	2	1,0
my institution.	%	42,0	20,0	22,0	6,0	10,0	2	1,0
16. The institution I work for	Fi	7	9	13	13	8	3	1,0
deserves loyalty to be	%	, 14,0	18,0	26,0	26,0	16,0	3	1,0
shown.	70	1,0	10,0	20,0	20,0	10,0		
17. I cannot leave my	Fi	7	9	16	13	5	3	1,0
institution now because I	%	, 14,0	18,0	32,0	26,0	10,0	3	1,0
feel responsibility to the	/0	1,0	_0,0	52,0	20,0	10,0		
people here.								
18. I owe a lot to the	Fi	7	13	5	18	7	3	1,0
institution I work for.	%	, 14,0	26,0	10,0	36,0	, 14,0	0	1,0
*Plass indicate your views on the following							trongly Agroa/CA) Standard

Table 3. Descriptive Analysis of Organizational Commitment Scale
Çizelge 3. Örgütsel Bağlılık Ölçeğinin Betimsel Analizi

*Please indicate your views on the following statements by ticking (x) the appropriate option(PFSTAO), (1) Strongly Disagree(SD), 5 Strongly Agree(SA), Standard Deviation(SD)

Table 4. Factor Analysis of Motivation Scale Çizelge 4. Motivasyon Ölçeğinin Faktör Analizi

Çîzelge 4. Motîvasyon Ölçeğinin Faktor Analizi		
KMO Sample Adequacy Test	,067	
Bartlett Test of Sphericity	2074,025	
Df	1128	
Sig (p)	,000	

Table 5. Variance Table of Motivation Scale

Çizelge 5. Motivasyon Ölçeğinin Varyans Tablosu

Factor Initial Eigenvalues Rotated Factor Values						
	_	Variance	Cumulative		Variance	Cumulative
	Total	%	%	Total	%	%
1	7,000	15,000	15,000	7,000	15,000	15,000
2	4,000	8,000	24,000	4,000	8,000	24,000
3	3,000	7,000	31,000	3,000	7,000	31,000
4	3,000	6,000	38,000	3,000	6,000	38,000
	2,000	5,000	44,000	2,000	5,000	44,000
5 6	2,000	5,000	49,000	2,000	5,000	49,000
7	2,000	5,086	54,000	2,000	5,086	54,000
8	2,076	4,000	58,000	2,076	4,000	58,000
9	1,000	4,000	62,000	1,000	4,000	62,000
10	1,000	3,000	66,000	1,000	3,000	66,000
11	1,000	3,000	70,000	1,000	3,000	70,000
12	1,000	3,000	73,000	1,000	3,000	73,000
13	1,000	2,000	76,000	1,000	2,000	76,000
14	1,000	2,000	78,000	1,000	2,000	78,000
15	1,044	2,000	81,040	1,044	2,000	81,040
16	,000	1,000	82,000	1,044	2,000	01,040
17	,000	1,000	84,000			
18	,000	1,000	86,000			
19	,000	1,000	87,000			
20	,000	1,000	89,000			
20	,000	1,000	90,000			
22	,000	1,000	91,000			
23	,000	,000	92,000			
24	,000	,000	93,000			
25	,000	,000	94,000			
26	,000	,000	95,000			
27	,000	,000	95,000			
28	,000	,000	96,000			
29	,000	,000	97,092			
30	,000	,000	97,000			
31	,000	,000	97,000			
32	,000	,000	98,000			
33	,000	,000	98,000			
34	,000	,000	98,000			
35	,095	,000	99,000			
36	,093	,000	99,000			
37	,075	,000,	99,000			
38	,058	,000,	99,000			
39	,044	,092	99,000			
40	,042	,086	99,000			
41	,030	,063	99,000			
42	,022	,046	99,000			
43	,021	,043	99,000			
44	,014	,029	99,000			
45	,008	,018	99,000			
46	,004	,008	99,000			
47	,002	,003	99,000			
48	5,058E-5	,000	100,000			

Table 6. Factor Analysis of Organizational Commitment Scale

Ç	Çizelge 6. Orgütsel Bağlılık Olçeğinin Faktör Analizi						
	KMO Sample Adequacy Test	,000					
	Bartlett Test of Sphericity	499,019					
	Df	153					
	Sig (p)	,000					

Table 7. Variance Table of Organizational Commitment Scale
Çizelge 7. Örgütsel Bağlılık Ölçeğinin Varyans Tablosu

Factor	U	Initial Eigenvalu	ies	R	otated Factor Va	alues
	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	5,000	32,000	32,000	5,000	32,000	32,000
2	2,000	14,000	46,000	2,000	14,000	46,000
3	1,000	10,000	57,000	1,000	10,000	57,000
4	1,000	8,000	66,000	1,000	8,000	66,000
5	,000	5,000	71,000			
6	,000	5,078	76,000			
7	,000	4,000	81,000			
8	,000	3,000	85,000			
9	,000	3,000	88,000			
10	,000	2,000	90,000			
11	,000,	2,086	92,000			
12	,000,	1,000	94,000			
13	,000,	1,000	95,000			
14	,000,	1,000	97,000			
15	,000,	1,000	98,000			
16	,000,	,000	99,086			
17	,000,	,000	99,000			
18	,061	,000	100,00			

Conclusion

In this study, which investigated the effects of motivation of electrotechnical personnel at Istanbul Airport on organizational commitment, the following results were obtained.

The results of the motivation scale as a function of the gender variable and its relationship with organizational commitment are explained below.

As a result of the descriptive analysis, the statement with the highest weighted average is "I believe that in addition to vocational training, personal development training should be organized." The agreement rate of women to this statement is 99%, while that of men is 73%. In this case, the importance attached to personal development training of female employees is higher than that of male employees. However, the majority of both female and male employees have chosen to organize personal training. Organizing personal training will increase the motivation of employees in the corporation. In this case, employees' commitment to their corporate will also increase.

As a result of the descriptive analysis, 10 expressions with the lowest weighted average were identified, namely;

1- "I have to work overtime because the people I work with are not competent" is the expression. The percentage of negative responses from females to this statement is 57%, and the percentage of negative responses from males is 57%. Consequently, most female and male employees believe that their colleagues do not have enough knowledge and that they should work harder. This leads to lower motivation and commitment to the corporate.

2- "Those who do their job well in the institution I work for have a fair chance of promotion" is the statement. It was found that female and male employees had difficulty in making a decision regarding this statement, and the rate of indecision for females was 71%, while the rate of indecision for males was 44%. This situation decreases the motivation of the personnel working for the organization and significantly decreases their commitment to their organizations.

3- "I place more emphasis on monetary rewards than moral rewards." is the statement. The percentage of negative responses from females to this statement is 71%, while the percentage of negative responses from males is 41%. From this result, it is evident that female employees give more importance to moral rewards than male employees. While moral rewards increase the sense of belonging and motivation of female employees, they decrease the motivation of male employees.

4- "I think I have equal rights with the other employees." is the statement. The percentage of women who affirm this statement is 56%, while the percentage of men is 36%. In this case, women believe that employees have more equal rights among themselves than men. This situation reduces the motivation of male employees and their commitment to their companies.

5- "There are many discussions among my colleagues with whom we work." is the statement. The percentage of negative responses from women to this statement is 99%, while the percentage of negative responses from men is 62%. In this case, female employees believe that there are fewer discussions among employees than among male employees. The absence of discussions is a factor that increases motivation and commitment to the corporation.

6- "There are considerations for co-employees in my workplace and they are remembered on special occasions. (birthdays, etc.)" they say. The percentage of negative responses from women to this statement is 42%, while the percentage of negative responses from men is 64%. In this case, male employees believe that little importance is attached to employees in the workplace, which reduces the motivation of male employees and their commitment to the corporation.

7- "There are practices in the corporate that I am not satisfied with, I have the opportunity to complain and I find fair solutions." it says. The percentage of positive responses from women to this statement is 56%, while the percentage of positive responses from men is 29%. In this case, female employees believe that they can find a fair solution if they are not satisfied with the corporation. Since this is not the case for male employees, motivation decreases, and commitment to the corporation decreases.

8- "The salary I receive for my work is sufficient" is the statement. The percentage of negative responses from women to this statement is 42%, and the percentage of negative responses from men is 59%. In this case, male employees believe that the wage they receive is insufficient. Wages are an important factor for motivation and also have a significant impact on commitment to the corporate. According to this result, male employees' commitment to their corporate is low.

9- "I think that the permission possibilities are sufficient", it is said. The rate of negative responses of women to this statement is 71%, while the rate of negative responses of men is 31%. In this case, female employees think that leave opportunities are insufficient. This situation reduces the motivation of female employees and their commitment to the corporate.

10- "I think that the lunch benefits are not adequate." is the statement. The percentage of negative responses from women to this statement is 56%, while the percentage of negative responses from men is 57%. In this case, the majority of both female and male employees are satisfied with lunch. Increasing satisfaction has a positive effect on motivation and increases loyalty to the corporate.

The results of the motivation scale as a function of the marital status variable and its relationship to organizational commitment are explained below.

As a result of the descriptive analysis, the statement with the highest weighted mean is "I believe that in

addition to professional trainings, personal development trainings should be organized." the expression. The positive response rate of married employees to this statement is 76%, the positive response rate of single employees is 87%, and the positive response rate of divorced or separated employees is 33%. In this case, the importance that married and single employees attach to personal training is higher than that of divorced or separated employees.

As a result of the descriptive analysis, 10 expressions with the lowest weighted mean were identified; these expressions are;

1- "I have to work overtime because the people I work with are not competent" it is said. This statement is answered negatively by 43% of married employees, 69% of single employees, and 33% of divorced or separated employees. In this case, most single employees think their colleagues are competent. Married, dependent or divorced employees think their colleagues are not competent. This situation decreases motivation because the married, single or divorced employees should work more. Lower motivation has a negative impact on organizational commitment.

2- "Those who do their job well in the institution I work for have a fair chance of promotion" is the statement. The negative response rate of married employees to this statement was 39%, and the negative response rate of divorced or separated employees was 66%. Single employees, on the other hand, had difficulty responding to this statement and remained undecided. The undecided rate among single employees is 76%. Indecision reduces motivation and retention. In addition, divorced and separated employees believe that the chances of promotion are low. This has a negative impact on motivation.

3- "I place more emphasise on monetary rewards than moral rewards." is the statement. The positive response rate to this statement is 46% for married employees, the negative response rate is 52% for single employees, and the negative response rate is 66% for divorced or separated employees. In this case, it shows that divorced or separated employees attach more importance to monetary reward. Most married employees place more importance on moral rewards. While monetary rewards sometimes increase motivation, they sometimes decrease it. As monetary rewards are prioritized for divorced or separated employees, motivation will increase and loyalty to the corporate will be strengthened.

4- "I think I have the equal rights with the other employees" is the statement. For this statement, the most noticeable positive voting rate is among single employees at 57%. Single employees believe they have the same rights as other employees. A proportion of married, divorced or separated employees disagree with the statement, while another proportion is undecided. The motivation of single employees is higher than that of other employees. Therefore, their commitment to the corporate is also strong. 5- "There are many discussions among my colleagues with whom we work" is the statement. The percentage of negative responses of the married employees to this statement is 60%, the percentage of negative responses of the single employees is 87%, some of the divorced or separated employees remained undecided and some of them made a negative decision. In this case, the single employees think that there is the least dispute among their colleagues. Discussions in the work environment is a situation that reduces motivation.

6- "There are consideration for coemployees in my work place and they are remembered on special occasions. (birthdays, etc.)" they say. The refusal rate of married employees to this statement was 73%, the refusal rate of divorced or separated employees was 66%, while some of the single employees were undecided and some of them decided negatively. In this case, generally all employees think that the corporate does not give importance to the employees. This in turn reduces motivation and retention.

7- "There are practices in the institution that I am not satisfied with, I have the opportunity to complain and I find fair solutions" it is said. This statement is answered negatively by 60% of married employees, 52.1% of single employees and 99% of divorced or separated employees. In this case, married, divorced or separated employees feel that they do not have the opportunity to complain, while most single employees feel that they do have the opportunity to complain. The ability to complain when dissatisfied is directly related to employee satisfaction and has a significant impact on employee motivation.

8- "The salary I receive for my work is sufficient." is the statement. This statement is denied by 76% of married employees and 66% of divorced or separated employees. While the majority of single employees remained undecided, 34% of them gave a positive answer. In this case, employees generally believe that the wage they receive is inadequate. Since the rate of married employees is higher than other employees, the motivation of married employees is lower than other employees.

9- "I think that the permission possibilities are sufficient" is the expression. It was found that married, single and divorced/separated employees are generally inconclusive about this statement.

10- "I think the lunch benefits are not adequate." is the statement. The percentage of negative responses to this statement is 56% for married employees, 58% for single employees, and 66% for divorced or separated employees. In this case, it can be assumed that employees in all groups are generally satisfied with the lunch options. This not only increases motivation but also has a positive effect on loyalty to the corporate.

The results of the motivation scale according to the age variable and its relationship with organizational commitment are explained below.

The result of the descriptive analysis shows that the statement with the highest weighted mean is: "I believe that in addition to professional training, personal development training should be organized." The positive

response rate to this statement is 93% for employees aged 20-30, the positive response rate for employees aged 31-40 is 74%, and the negative response rate for employees aged 41-50 is 56.5%. All employees made a positive decision. In this case, it can be seen that most employees aged 41-50 do not value personal development. However, most employees do value personal training in general.

As a result of the descriptive analysis, 10 expressions with the lowest weighted average were identified, as follows;

1- "I have to work overtime because the people I work with are not competent," is said. The percentage of negative responses to this statement was 69% among employees aged 20-30, the percentage of negative responses was 69% among employees aged 31-40, and employees aged 41-50 and 51 and older had difficulty making a decision. In this case, most young employees and middle-aged employees think that their colleagues are competent employees. The number of young employees and middle-aged employees in the corporation is higher. In this case, the motivation of employees for this statement is high according to the age variable. In this case, it has a positive effect on organizational commitment.

2- "Those who do their job well in the institution I work for have a fair chance of promotion" is the statement. Employees aged 20-30 were undecided on this statement and the rate of undecided is 76%. The negative response rate of employees between the age groups

3- In regards to the expression "I place more emphasise on monetary rewards than moral rewards.", 52% of employees between the ages of 20-30 gave a negative response, 49% of those between 31-40 gave a negative response, whereas 71% of those between 41-50 gave a positive response, and 50% of those aged 51 and over gave a positive response. It is revealed that employees between the ages of 41-50 attach more importance to moral rewards and most employees between the ages of 31-40 give more importance to monetary rewards. However, for some employees, monetary rewards increase motivation whereas for others it decreases motivation. According to the results, electrical technical personnel working at Istanbul Airport largely attach importance to moral rewards.

4- Concerning the expression "I think I have equal rights with the other employees", 63% of those between 20-30 gave a positive response, 51% of those between 31-40 gave a positive response whereas 70% of those aged 41-50 and 70% aged 51 and over responded negatively. This reveals that employees aged 41-50 and above feel they do not have equal rights with other employees; this situation reduces motivation levels and commitment within the organization.

5- "There are many discussions among my colleagues with whom we work". It appears that most of the electrical technical personnel at Istanbul Airport don't think so. 89% of employees aged between 20-30, 69% of those aged 31-40, and 76% of those aged 41-50 gave negative responses to this statement. Even those 51 and over had a negative response rate of 75%. This lack of discussion amongst co-employees may have an effect on motivation and commitment to the organization.

6- Regarding the other statement, "There is consideration for co-employees in my workplace and they are remembered on special occasions. (birthdays, etc.)" there was difficulty gaging the level of commitment from employees in the 20-30 age range. Negative response rates for those aged 31-40 was 74%, 41-50 was 99%, and all employees aged 51 and over had a negative response. This seems to indicate that most electrical technical personnel working in the corporate feel they aren't valued or appreciated by their employer, which consequently results in lower motivation and commitment.

7- "There are practices in the institution that I am not satisfied with, I have the opportunity to complain and I find fair solutions" 68% of employees aged 31-40 had a negative response rate, 71% of employees aged 41-50 had a negative response rate, and 71% of employees aged 41-50 The employee percentage is 71%. Half of them think there is a way to complain, while the other half think there isn't. For this reason, young employees believe they have the opportunity to complain, while older employees believe they do not have this opportunity. This situation negatively affects motivation and reduces organizational commitment.

8- It is an expression "The salary I receive for my work is sufficient." 59% of employees aged 20-30 responded negatively to this statement, 65% of employees aged 31-40 responded negatively, and 65% of employees aged 31-40 responded negatively to this statement. has 92% of its employees aged 41 and 50, and 92% of its employees aged 51 and over. The negative response rate was 92%. This situation shows that employees are not getting enough wages regardless of their age. Employees who believe they are underpaid are demotivated and, in this case, have a negative impact on organizational commitment.

9- "I think that the permission possibilities are sufficient" it says. The percentage of positive responses to this statement from employees aged 20-30 is 52%, the percentage of positive responses from employees aged 31-40 is 55%, the percentage of negative responses from employees aged 41-50 is 85%, and the percentage of employees aged 51 and over. They all answered "no." In this case, most young and middle-aged employees are satisfied with the vacation opportunities, while employees aged 41-50 and 51 and older think that there are not enough vacation opportunities. This shows that motivation is high among young and middle-aged employees, while it is low among employees aged 41-50 and over 51.

10- "I think the lunch benefits are not adequate." is the expression. The rate of negative response given to this statement by employees between the ages of 20-30 is 66%, the rate of negative responses given by employees between the ages of 31-40 is 65%, the rate of negative responses given by employees between the ages of 41-50 is 63%, and employees aged 51 and over He was hesitant to answer this statement. In this case, except for

employees aged 51 and over, they are satisfied with the lunch opportunities. While this affects motivation positively, it also increases commitment to the organization.

Below, we discuss the relationship between the results of the motivation scale according to the educational level of the variables and organizational commitment.

A descriptive analysis found that the statement with the highest weighted average was the expression "I believe that in addition to vocational training, personel development training should be organized." The positive response rate of elementary school graduates to this statement was %100, the positive response rate of high school graduates was %70, the positive response rate of university graduates was %86, and graduate students were reluctant to respond to this statement. In this case, I think that elementary school graduates, high school graduates, and university graduates should organize personal training. The master's degree recipient is undecided. As a result, organizing personal training courses in general increases the motivation of the corporate employees and their loyalty to the organization.

A descriptive analysis determined the 10 terms with the lowest weighted averages, and these terms were:

1-. "I have to work overtime because the people I work with are not competent" is the remark. The percentage of primary school graduates who agreed with this statement was 100%, the percentage of high school graduates who disagreed with it was 71%, the percentage of university graduates who agreed with it was 68%, and the percentage of master's degree holders who agreed with it was 63%. Employees with only a primary education and recent graduates feel their co-employees are incompetent in this situation. However, those who have completed high school or a university program think their coemployees are competent. Employees with graduate degrees and those who have completed primary school are therefore less motivated than those who have completed high school or a university.

2- The phrase is, "Those who do their job well in the institution I work for have a fair chance of promotion" This statement receives a 100% favorable response from primary school graduates, a 57% negative response from university graduate employees, and a 75% negative response from graduate employees. The majority of the staff members feel that their possibilities of promotion are unreasonably low, with the exception of those who have just graduated from high school. As a result, there is a general decline in employee motivation, which negatively affects their commitment to the business.

3- "I place more emphasise on monetary rewards than moral rewards." is the expression. The positive response rate to this statement was given by the primary school graduates 100%, the high school graduate employees gave a positive response rate of 53%, the university graduate employees gave a negative response rate of 59%, and half of the postgraduate graduates gave a positive response and half of the employees with a master's degree gave a negative response to this statement. In this case, while primary and high school graduates give importance to monetary rewards, university graduates give more importance to moral rewards.

4- The phrase is, "I believe I have equal rights with other employees." Primary school graduates responded negatively to this statement at a rate of 100%, high school graduates responded negatively at a rate of 71%, university graduates responded positively at a rate of 63%, and graduate employees responded positively at a rate of 62%. Primary and high school graduates working in this situation believe they do not have the same rights as other employees and are less motivated. The devotion to the organization is weakened by this circumstance.

5- The phrase is, "There are many discussions among my colleagues with whom we work." Primary school graduates responded negatively to this statement 100% of the time, high school graduates negatively responded 64% of the time, university graduates negatively responded 84% of the time, and graduate employees negatively responded 75% of the time. Most of the electrical technical staff members at Istanbul Airport believe that there is no dialogue going on in this particular situation. As a result, although commitment among co-employees boosts motivation, it also reinforces employees' loyalty to the corporate.

6- "There are considerations for co-employees in my workplace and they are remembered on special occasions. (birthdays, etc.)" is the expression. The rate of negative response given to this statement by primary education graduates is 100%, the rate of negative response given by high school graduate employees is 71%, the rate of negative response by university graduate employees is 68%, and the rate of negative response by graduate employees is 75%. In this case, most of the employees think that the workplace does not give importance to the employees and does not remember the employees on special days. In this case, motivation decreases and employees' commitment to the organization decreases.

7- "There are practices in the institution that I am not satisfied with, I have the opportunity to complain and I find fair solutions" is the expression. The rate of negative response given to this statement by primary school graduates is 100%, the rate of negative response given by high school graduates is 70%, the rate of positive response given by university graduate employees is 52%, and the rate of negative response by graduate employees is 75%. . In this case, it is only university graduate employees who think that there are opportunities to complain. While the motivation of university graduate employees is high, the motivation of other employees is low.

8- The phrase means, "The salary I receive for my work is sufficient." Primary school graduates responded negatively to this statement at a rate of 100%, high school graduates responded negatively at a rate of 92%, university graduates responded negatively at a rate of 58%, and graduates responded negatively at a rate of 62%. The majority of the employees in this situation believe that their salary is insufficient. Employees with university degrees and master's degrees have more optimistic outlooks than do individuals with only primary and secondary education. However, employee motivation is generally poor, which has a negative impact on their loyalty to the corporation.

9- "I think the permission possibilities are sufficient." is the expression. The rate of negative response given to this statement by primary school graduates is 100%, the rate of positive response given by high school graduates is 52%, the rate of negative response by university graduates is 55%, and the postgraduate graduates are hesitant to answer this statement and the indecision rate is 75%. is . This means that most of the employees who are only high school graduates are satisfied with the leave opportunities and their motivation is positive. Most of the primary and university graduates are not satisfied with the leave opportunities and their motivation is negative. Master's graduates, on the other hand, were hesitant to answer this statement. While indecision reduces motivation, it also negatively affects organizational commitment.

10- The phrase is, "I think the lunch benefits are not adequate." Primary school graduates responded negatively to this statement at a rate of 100%; high school graduates responded negatively at a rate of 56%; university graduate employees responded negatively at a rate of 64%; and graduate employees responded negatively at a rate of 87%. The majority of the employees in this situation are content with the lunch benefits. This circumstance increases organizational commitment while having a beneficial impact on motivation.

The results of the motivation scale based on the educational status variable are explained below, along with how they relate to organizational commitment.

The statement with the highest weighted average as a result of the descriptive analysis is "I feel that personal development training should be organized in addition to vocational training." 66% of the employees in the employee position responded positively to this statement, 66% of the employees in the civil service position positively responded, 85% of the employees in the contract personnel position positively responded, 86% of employees in the corporate personnel position positively responded. All the employees in the organization who work in this situation agree that personal training should be provided.

As a result of the descriptive analysis, 10 expressions with the lowest weighted average were determined and these expressions were;

1-"I have to work overtime because the people I work with are not competent" is an expression. This statement has a negative response rate of 7 % for employee positions, an 81% negative response rate for civil servants, a 65% negative response rate for contract employees, and a 65% negative response rate for employees. Corporate staff positions have 62%. It is In this case, employees working in all positions of the corporate consider their colleagues competent. While this increases motivation, it also positively affects organizational commitment.

2- "Those who do their job well in the institution I work for have a fair chance of promotion" is an expression. To this statement, the percentage of employees who had staff positions gave a negative answer, 6% of employees in officer positions, and the percentage of undecided was 83%, the percentage of negative answer of contract employees was 60%. , the corporate's employees hesitate to judge this claim. and the undecided rate is 53%. In this case, employees and contract employees feel that they do not have a fair chance for promotion. Civil servants and corporate employees had difficulty making decisions. Such a situation usually demotivates employees and reduces their commitment to the organization.

3-"I place more emphasise on monetary rewards than moral rewards." is the expression. To this statement, the negative response rate given by the employees in the employee position is 52%, the negative response rate by the employees in the civil servant position is 66%, the negative response rate by the employees in the contracted personnel position is 70%, and the positive response rate by the employees in the corporate personnel position is 52%. is In this case, employees in the position of corporate personnel give more importance to monetary rewards. Other employees give more importance to moral rewards. The moral rewards to be given by the corporate will decrease the motivation of the corporate personnel and decrease their commitment to the organization, while increasing the motivation of other employees and strengthening their commitment to the organization.

4- "I believe I have equal rights with other employees." is the expression. The positive response rate to this statement was given by employees in the employee position 62%, the positive response rate given by the employees in the officer position is 66%, the negative response rate given by the employees in the contracted personnel position is 75%, and the positive response rate by the employees in the corporate personnel position is 53%. In this case, only those who work as contracted personnel think that they do not have equal rights with other employees. This negatively affects organizational motivation by reducing the motivation of contract employees.

5- "There are many discussions among my colleagues with whom we work." is an expression. The percentage of negative responses given to this statement by employees in employees is 75%, the percentage of negative responses by employees in civil servants is 100%, and the percentage of negative responses by contract employees is 80%. , and the corporate personnel has a negative response rate of 72%. In this case, employees in all positions in the corporate generally feel that there is not much discussion between colleagues. This increases employee motivation and positively affects their commitment to the organization.

6- "There are consideration for coemployees in my work place and they are remembered on special

occasions. (birthdays, etc.)" is the expression. To this statement, the negative response rate given by the employees in the employee position is 56%, the negative response rate by the employees in the civil servant position is 74%, the negative response rate by the employees in the contracted personnel position is 55%, and the negative response rate by the employees in the corporate staff position is 79%. In this case, employees in all positions of the corporate feel that the corporate does not value them. This weakens employee motivation and negatively affects their commitment to the organization.

7- "There are practices in the institution that I am not satisfied with, I have the opportunity to complain and I find fair solutions" is an expression. To this statement, half of the employees working in the position of an employee assessed a positive alternative and half of a negative response rate, the percentage of negative response from civil servants was 74%, the percentage of negative response from contract employees. the share of employees was 70% and the rate of negative responses from corporate employees was 53%. In this case, most employees who are not working feel that they have no right to appeal. This weakens employee motivation and negatively affects their commitment to the organization.

8- "The salary I receive for my work is sufficient." is an expression. To this statement, the percentage of negative responses from employees in the position of employee is 68%, the percentage of negative responses from employees in civil servants is 57%, the percentage of negative responses from contract employees. position is 80% and the negative response rate of corporate HR employees is 67%. In this case, the personnel working in all positions generally think that the wages they receive are insufficient. This affects the organizational commitment negatively by decreasing the motivation of the employees.

9- "I think the permission possibilities are sufficient." is the expression. Half of the employees in employee and civil servant positions decided on this statement in the affirmative and the other half in the negative. Contract employees had a negative response rate of 55%, and those in the position of corporate employees had difficulty deciding the statement, with an undecided rate of 6%. A group of employees who believe that vacation opportunities are not enough are contract employees. In this case, the motivation of the staff decreases and the commitment to the organization decreases.

10- "I think the lunch benefits are not adequate." is an expression. To this statement, the percentage of negative responses from employees in salaried positions is 68%, the percentage of negative responses from employees in civil services is 66%, the percentage of negative responses from employees in contractual relationships is 65%, and the percentage. of negative answers given by employees in staff positions is 6%. In this case, the personnel working in all positions think that lunch opportunities are sufficient. This increases the motivation of the employees and positively affects the organizational commitment.

The factors affecting the motivation of the electrical technical personnel working at Istanbul Airport and the organizational commitment are explained. Motivation differs according to gender, age, marital status, educational status, and position in the corporation. The positive effect of motivation also affects organizational commitment positively. When looking at all the variables in general, the expression that affects motivation most negatively is "The wage I get for my work is sufficient." is the expression. As it can be understood from here, wage policy is the biggest factor that directly affects motivation. The decrease in the motivation of the employees also affects the organizational commitment negatively.

Extended Summary

The commitment of individuals to the organization is crucial for organizations to achieve the goals they have set. Organizations strengthen the commitment of employees to the organization by respecting and accepting their culture, norms, and values, as well as their duties in the institution. It is easier to manage and direct the employees at the organizational level in this case. Employees need to affiliate with the organization in order to prioritize organizational goals. When affiliation occurs, employees are ready to make any sacrifice for the organization. The main feature of organizational productivity is to explain this situation (Eren, 2017: 555). It is essential to increase the productivity of employees and to examine the factors that motivate them. The most popular of these phenomena is the motivation that stimulates the wishes of the employees (Akyar: 15). There can be various ailments people feel caused by unpredictable desires. If these ailments are eliminated, the satisfaction level of the employees increases. It is very difficult to measure or discover the hidden emotions that people feel. These hidden feelings can only emerge with various incentives and environmental conditions (Eren, 2011:531). This study was conducted to investigate the effect of motivation of electrical technical personnel working at Istanbul Airport in Istanbul Province on organizational commitment.

A relational research method was used in this study. The relational research method is a type of quantitative research method. By this method, the scientific significance of the relationship between the motivation and organizational commitment of the electrical technical personnel working at Istanbul Airport and how the demographic characteristics of the personnel affect motivation and organizational commitment has been investigated. The relational screening model is applied while investigating the relationships between multiple variables. In this model, while investigating the relationships between the variables, the direction and quality of the relationships are also compared. As a result, the effects of these relations on each other and the causes are investigated (Karasar, 2007: 77).

In the research, factor analysis has been applied to determine the basic dimensions of the motivation and

organizational commitment scales by gathering the question or expression groups under the same factor so that the complexity of the research can be more understandable. Since the Sig (p) value of the motivation scale was p<0.000, it was determined that it was suitable for factor analysis. The Kaiser-Meyer-Olkin sample adequacy test result was calculated as 0.067 and analysis was deemed appropriate. The table below shows that the motivation scale consists of 7 dimensions. It was also shown that 81.04% of the variance was explained by the dimensions.

Because the Sig (p) value of the organizational commitment scale was p<0.000, it was determined that it was suitable for factor analysis. The result of Kaiser-Meyer-Olkin sample adequacy test was calculated as .000 and analysis was deemed appropriate. The table below shows that the organizational commitment scale consists of 4 dimensions. It was also shown that 66.00% of the variance was explained by the dimensions.

As a result of the descriptive analysis, the statement with the highest weighted average is "I believe that in addition to vocational training, personal development training should be organized." The agreement rate of women to this statement is 99%, while that of men is 73%. In this case, the importance attached to personal development training of female employees is higher than that of male employees. However, the majority of both female and male employees have chosen to organize personal training. Organizing personal training will increase the motivation of employees in the corporation. In this case, employees' commitment to their corporate will also increase.

The result of the descriptive analysis shows that the statement with the highest weighted mean is: "I believe that in addition to professional training, personal development training should be organized." The positive response rate to this statement is 93% for employees aged 20-30, the positive response rate for employees aged 31-40 is 74%, and the negative response rate for employees aged 41-50 is 56.5%. All employees made a positive decision. In this case, it can be seen that most employees aged 41-50 do not value personal development. However, most employees do value personal training in general.

A descriptive analysis found that the statement with the highest weighted average was the expression "I believe that in addition to vocational training, personel development training should be organized." The positive response rate of elementary school graduates to this statement was %100, the positive response rate of high school graduates was %70, the positive response rate of university graduates was %86, and graduate students were reluctant to respond to this statement. In this case, I think that elementary school graduates, high school graduates, and university graduates should organize personal training. The master's degree recipient is undecided. As a result, organizing personal training courses in general increases the motivation of the corporate employees and their loyalty to the organization. The statement with the highest weighted average as a result of the descriptive analysis is "I feel that personal development training should be organized in addition to vocational training." 66% of the employees in the employee position responded positively to this statement, 66% of the employees in the civil service position positively responded, 85% of the employees in the contract personnel position positively responded, 86% of employees in the corporate personnel position positively responded. All the employees in the organization who work in this situation agree that personal training should be provided.

The factors affecting the motivation of the electrical technical personnel working at Istanbul Airport and the organizational commitment are explained. Motivation differs according to gender, age, marital status, educational status, and position in the corporation. The positive effect of motivation also affects organizational commitment positively. When looking at all the variables in general, the expression that affects motivation most negatively is "The wage I get for my work is sufficient." is the expression. As it can be understood from here, wage policy is the biggest factor that directly affects motivation. The decrease in the motivation of the employees also affects the organizational commitment negatively.

References

 Akkoyunlu B., Soylu M. (2010). A Study on Teachers' Numerical Competencies. Turkish Librarianship Journal, 24(4), 748-768.

- 2. Akyar A. Efficient Management and Management- II, Ilya Publications, 3. Editions, Izmir, 2013.
- Balay R. Organizational Commitment in Managers and Teachers, Nobel Publishing Distribution, 1. Editions, Ankara, 2000.
- 4. Balcı A. Organizational Socialization, Pegem Academy Publications, 2. Editions, Ankara, 2003.
- 5. Eren E. Management and Organization (Contemporary and Global Approaches), Beta Publications, 10. Editions, Istanbul, 2011.
- Eren E. Organizational Behavior and Psychology of Management, Beta Publications, 16. Editions, Istanbul, 2017.
- Karahan A. (2008) Learning As A Team In Hospitals. Afyon Kocatepe University Journal of the Faculty of Economics and Administrative Sciences, 10 (2), 237-255.
- 8. Karasar N. Scientific Method of Research. Nobel Academic Publishing, 17. Editions, Ankara, 2007.
- 9. Özdemir G. Human Resources Management from the Perspective of a Communicator, Mediacat Publications, 1. Editions, Istanbul, 2007.
- 10. Saruhan C.Ş., Yıldız M.L. Human Resources Management Theory and Practice, Beta Publications, Revised 2. Editions, Istanbul, 2014.
- 11. Ustuner M. (2009). Organizational Commitment Scale for Teachers: Validity and Reliability Study. Inonu University Journal of the Faculty of Education, 10 (1).



The Role of Public-Private Energy Investments in Reducing Poverty in Brazil

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Research Article	ABSTRACT
History Received: 15/05/2023 Accepted: 05/09/2023	The issue of poverty reduction, which is among the main goals of the United Nations within the scope of sustainable development, is among the issues of high importance. The hypothesis that public and private sector energy investments have an effect on poverty will be empirically tested in this study. In this context, this paper aims to examine the long- and short-run dynamics between poverty, public-private energy investment, per capita income, and CO ₂ emissions in Brazil where the poverty rate is above the world average and has a high energy investment potential for the period 1994-2020. For this purpose, the auto Regressive Distributed Lag (ARDL) approach has been applied. As a result of the applied ARDL bounds test, a long-run cointegration relationship between poverty, public-private energy investment, per capita income, and CO ₂ emissions has been confirmed in Brazil. The long-run findings show that an increase in public-private sector energy investments and
JEL Codes: 132, P36, Q43	per capita income will increase final consumption expenditure per capita. It is seen that CO_2 emissions do not have a significant effect on poverty. Finally, the paper also provides some output on short-run dynamics. Based on these results, it has been determined that the encouragement of investments in the use of public and private renewable energy resources by the relevant policymakers in Brazil will provide significant effects both in the context of sustainable development targeted by the United Nations and in line with the goal of poverty reduction in Brazil.

Keywords: Poverty, Public Private Energy Investment, Per Capita Income, CO2 Emissions

Brezilya'da Yoksulluğu Azaltmada Kamu-Özel Sektör Enerji Yatırımlarının Rolü



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ÖZ Birl

Birleşmiş Milletler'in sürdürülebilir kalkınma kapsamında temel hedefleri arasında yer alan yoksulluğun azaltılması konusu önem derecesi yüksek konular arasındadır. Kamu ve özel sektör enerji yatırımlarının yoksulluk üzerinde etkili olduğu hipotezi bu çalışma da ampirik olarak test edilecektir. Bu bağlamda çalışma, yoksulluk oranının dünya ortalamasının üzerinde yer aldığı ve enerji yatırım potansiyeli yüksek olan Brezilya'da 1994-2020 dönemi için yoksulluk, kamu-özel enerji yatırımı, kişi başına gelir ve CO₂ emisyonu arasındaki uzun ve kısa dönem dinamikleriyle incelemeyi amaçlamaktadır. Bu amaca yönelik olarak gecikmesi dağıtılmış otoregresif sınır testi (ARDL) yaklaşımı uygulanmıştır. Uygulanan ARDL sınır testi sonucunda, Brezilya'da yoksulluk, kamu-özel enerji yatırımı, kişi başına düşen gelir ve CO₂ emisyonu arasında uzun dönemli bir eş-bütünleşme ilişkisi olduğu doğrulanmıştır. Uzun döneme ilişkin elde edilen bulgular, kamu-özel sektör enerji yatırımlarında ve kişi başına düşen gelirde yaşanacak bir artışın, kişi başına düşen nihai tüketim harcamasını artıracağını göstermiştir. CO₂ emisyonun yoksulluk üzerinde anlamlı bir etkiye sahip olmadığı görülmektedir. Son olarak, makale kısa dönem dinamikleri hakkında da bazı çıktılar sunmaktadır. Bu sonuçlardan hareketle, ilgili politika yapıcılar tarafından Brezilya özelinde kamu ve özel yenilebilir enerji kaynaklarının kullanımına yönelik yatırımların teşvik edilmesinin hem Birleşmiş Milletler'in hedef gösterdiği sürdürülebilir kalkınma bağlamında hem de Brezilya'da var olan yoksulluğun azaltılması hedefi doğrultusunda oldukça önemli etkiler sunacağı tespit edilmiştir.

Anahtar Kelimeler: Yoksulluk, Kamu Özel Sektör Enerji Yatırımları, Kişi Başına Gelir, CO2 Emisyonu



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Giriş

Birleşmiş Milletler'in (BM) sürdürülebilir kalkınma programı çerçevesinde ele aldığı 17 temel hedef vardır. Bu hedefler sırasıyla; yoksulluğa son, açlığa son, sağlık ve kaliteli yaşam, nitelikli eğitim, toplumsal cinsiyet, temiz su ve sanitasyon, erişilebilir ve temiz enerji, insana yakışır iş ve ekonomik büyüme, sanayi, yenilikçilik ve alt yapı, eşitsizliklerin azaltılması, sürdürülebilir şehirler ve topluluklar, sorumlu üretim ve tüketim, iklim eylemi, sudaki yaşam, karasal yaşam, barış adalet ve güçlü kurumlar ile amaçlar için ortaklıklar başlıklarından oluşmaktadır. Önem derecesine göre yapılan bu sıralamadan da görüleceği üzere BM'in sürdürülebilir kalkınma hedefleri arasında ilk sırada yoksulluğun ortadan kaldırılması gelmektedir. Şimdi ve gelecekte insanlar ve gezegen için barış ve refah içerisinde yaşamak amacıyla oluşturulan bu hedefler 2015 yılında tüm Birleşmiş Milletler üye devletleri tarafından kabul edilmiştir. 2030 yılına kadar planlanan bu hedeflerin gerçekleştirilmesi adına projelerin uygulanmaya başlandığı ifade edilmiştir (United Nations, 2022). Yoksulluğun azaltılması ve ortadan kaldırılması adına gerek BM'in gerekse tüm dünya ülkelerinin ortak hareket ettiği bilinmektedir. Az gelişmiş ve gelişmekte olan ülkeler başta olmak üzere dünya genelinde bu denli önemli bir konunun incelenmesi calışma acısından önemlidir.

Küresel ısınma sorunu dünyanın en temel sorunları arasındadır ve bu sorunun bir yansıması olarak ortaya çıkan iklim değişikliği ülke ekonomileri üzerinde önemli bir tehdit unsuru oluşturmaktadır (Şeyma Erdik & Temurlenk, 2023). Küresel ısınmayla birlikte derinleşen yoksulluğun azaltılması konusunda çözümlerden ilki, ekonomik büyümeyi teşvik eden politikalara öncelik vermektir. Az gelişmiş ve özellikle gelişmekte olan ülkelerin gelişmiş ülkelere yakınsaması için ekonomik büyüme hedefini gerçekleştirmeleri önemlidir. Ülkeler, çeşitli destek ve teşviklerle reel üretim ve sanayileşmeye yönelerek ekonomilerini canlandırmayı ve yoksulluğu azaltmayı hedeflemektedir (Baloch vd., 2020). Yoksulluk ve büyüme ilişkisine ilişkin yapılan çalışmalar incelendiğinde, yoksulluğun; üretim artışı, sanayileşme ve kentleşmenin sağlanmasıyla önemli ölçüde azalacağı vurgulanmaktadır (Faridi vd., 2018; Fosu, 2017; Huang vd., 2020; Jin vd., 2020). Diğer yandan özellikle ekonomik büyümeyi gerçekleştirmek için ihtiyaç duyulan en önemli girdinin enerji olduğu bilinmektedir (Koçak & Çelik, 2022). Fakat büyüme odaklı politikaların yoğun olarak uygulanması durumunda da çevre ve doğal kaynakların tahrip edilmesi sorunu ortaya çıkmaktadır. Bu soruna dikkat çeken, BM'in sürdürülebilir kalkınma hedefleri arasında yer alan kalkınma sürecinde doğal kaynaklar ve çevre üzerindeki ek baskıyı hafifletmek ve erişilebilir ve temiz enerji kaynaklarının tesis edilmesi konularına da önem verilmesi gerekmektedir (Haider vd., 2018). Brezilya'nın da içerisinde yer aldığı gelişmekte olan ülke gurubunun çoğunda nüfus yoğunluğunun fazla olması, sanayileşme süreçlerinin hız kazanması ve sanayileşme ile birlikte ihtiyaç duyulan ana girdinin yani enerjinin ülkede yoğun olarak bulunmaması konularından dolayı enerjide dışa bağımlılık oranları yüksektir. Bu bağımlılık oranın azaltılması için enerji üretiminin artırılması ve enerji üretimine yönelik yatırımlara daha fazla kaynak ayrılması gerekmektedir. Özellikle BM'nin sürdürülebilir kalkınma hedeflerini gerçekleştirmek adına yenilenebilir enerji yatırımlarına yönelinmesi önem arz etmektedir. Fakat yenilebilir enerji yatırımlarının gerçekleşmesi ve enerji ihtiyacının karşılanması ise uzun soluklu bir süreçtir. Çünkü yenilebilir enerji yatırımları yüksek risk ve başlangıç sermayesi gerekliliğine sahiptir (Yang vd., 2019).

Bu çalışmada, yoksulluğunun giderilmesinde kamuözel sektör enerji yatırımlarının önemli olduğu hipotezinin Brezilya özelinde incelenmesi amaclanmaktadır. Brezilya'da 1996 yılında hane halkı üzerinde yapılan ankette (Pesquisa Nacional por Amostra de Domicílios, PNAD) São Paulo metropol bölgesinde "asırı yoksulluk" sınırı bir hayat standardına sahip olduğu sonucuna ulaşılmıştır. Brezilya'da genel yoksulluk oranının, bir yoksulluk sınırı hesabına göre (sadece gida yoksulluk sınırı) %23, diğer bir yoksulluk sınırına göre (gelirleri gıda yoksulluk sınırına eşit olan kişilerin gerçek tüketim kalıplarına göre) %45 olduğu tespit edilmiştir. Ancak daha da önemlisi, yoksulluğun bölgeler ve şehir büyüklükleri arasında önemli ölçüde farklılık gösterdiği, kırsal alanların, küçük ve orta ölçekli kasabaların ve Kuzey ve Kuzeydoğu bölgelerinin metropol cevrelerinde bu oranların çok daha üzerinde bir voksulluğa sahip olunduğu tespit edilmiştir (Ferreira vd., 2003). 2011-2014 döneminde "aşırı yoksulluk" içinde yaşayan hanelerin ortalama oranı %1,45-%17,06 aralığında farklılık göstermektedir (Nakabashi, 2018). Dünya bankası verilerine göre 2017 satın alma gücü paritesi ve nüfusun yüzde oranı hesaba katılarak günlük 2,15\$'ın altında kazananların yoksul olarak tanımlandığı durumda, 2021 yılında Brezilya'nın yoksulluk oranı %5,8'dir. Aynı yöntemle yapılan hesaplamada yüksek gelir düzeyine sahip ülkelerin yoksulluk oranı %0.6 bulunmuştur (World Bank, 2021). Brezilya'nın toplam enerji üretimi 2021 yılı verilerine göre 11.875 katrilyon Btu (British thermal units) iken toplam enerji tüketimi 12.087 katrilyon Btu'dır. Petrol ve diğer sıvı yakıtların üretimi 2016 yılına kadar tüketimini karşılayamayacağı bir düzeyken 2016 yılı sonrasında petrol ve diğer sıvı yakıtların üretimi, petrol ve diğer sıvı yakıtların yakıt tüketimini geçmiştir. Brezilya'nın 2021 yılı net elektrik tüketimi 577 milyar kilovatsaattir ve Dünya'da elektrik tüketiminde Çin, Amerika, Hindistan, Rusya ve Japonya'nın ardından 6. sırada yer almaktadır (EIA, 2021). Brezilya Enerji Planlama Ajansı (EPE) 2020-2030 döneminde, "On Yıllık Enerji Genişletme Planı (PDE)" doğrultusunda; ülkedeki tüm enerji arzının %48'inin yenilenebilir enerji kaynaklarından (hidro, biyokütle, etanol, rüzgar ve güneş) sağlanacağını belirtmiştir (EPE, 2019). Bu denli yüksek yenilenebilir enerji potansiyeline sahip bir ülkeye yapılacak kamu ve özel sektör enerji yatırımların yoksulluk bağlamında incelenmesi önem arz etmektedir.

Brezilya'nın yoksulluk oranının geçmiş yıllardan günümüze kadar bir düşüş yaşanmasına rağmen dünya ortalamasının çok üzerinde olması ve yenilenebilir enerji potansiveli vüksek olmasına rağmen veterince kullanılmaması nedeniyle bu ülkenin incelenmesi amaclanmıştır. Gelişmekte olan ülke grubu icerişinde ver alan Brezilya'nın çalışılan konuya ilişkin verilerinin elverişli (Ferreira vd., 2010) olması da bu ülkenin incelenmesine katkıda bulunmuştur. Bu bilgilerden hareketle Brezilya'nın yoksulluk sorununun azaltılmasında, ekonomik büyümeye önemli etkisi olduğu düşünülen kamu ve özel sektör enerji vatırımlarının katkısının incelenmesinin literatürde ver alan bir boşluğun giderilmesinde faydalı olacağı düşünülmektedir.

Çalışma; teorik açıklamaların yer aldığı giriş bölümü, ele alınan konuyla ilgili çalışmaların yer aldığı ampirik literatür özeti, verilerin hazırlanıp analiz edildiği veri seti ve yöntem, analiz sonuçlarının yorumlanıp değerlendirildiği sonuç bölümlerinden oluşmaktadır.

Ampirik Literatür Özeti

Çalışmanın bu bölümünde kamu ve özel sektör enerji yatırımları ile yoksulluk arasındaki ilişkiyi inceleyen, daha önce yayımlanmış çalışmalara yer verilmiştir. Çalışmanın konusunun literatürde sıklıkla çalışılan konular arasında yer almaması nedeniyle doğrudan çalışma konusuna benzer çalışmalara ek olarak enerji yatırımlarını kapsayan alt yapı yatırımları, doğrudan yabancı yatırımlar (DYY) ile yoksulluk arasındaki ilişkiyi ele alan çalışmalara ilişkin bilgilere de literatür özetinde yer verilmiştir. Literatür özetinde, birden fazla ülkevi bir arada inceleyen calısmaların yanı sıra doğrudan Brezilya ekonomisini ele alan çalışmalar da vardır. Yazarların; hangi yöntemi kullandıkları, hangi döneme ilişkin verilerden yararlandıkları, hangi analiz yöntemini kullandıkları ve hangi bulgulara eriştiklerine ilişkin bilgiler kronolojik olarak aşağıda yer almaktadır.

Bu bağlamda incelenen ilk çalışmada Alinsato (2015), 133 gelişmekte olan ülkenin küreselleşme göstergeleri ve altyapı yatırımlarının yoksullukla ilişkisini incelemiştir. İki asamalı en küçük kareler (2SLS) yöntemi kullanılarak yapılan analiz sonucunda elde edilen bulgular, küreselleşmenin yoksulluğun azaltılmasında etkili olduğu, hatta altyapı yatırımlarının artırılmasıyla birlikte bu etkinin boyutunun daha da arttığı sonucuna ulaşmıştır. İyi bir altyapı kalitesinin, yoksulluğun azaltılmasında daha yüksek bir küreselleşme etkisi için gerekli bir koşul olduğu vurgulanmıştır. Son ayrıca olarak, çalışmada küreselleşmenin yoksulluğun azaltılmasına önemli ölçüde katkıda bulunması için bilgi teknoloji ve enerji altyapılarına yatırım yapılmasının gerekli olduğu sonucuna ulaşılmıştır.

Şahbaz, Buluş, & Kaleci (2016) Türkiye ekonomisinde 1980-2015 dönemi için dışa açıklık ve DYY girişlerinin yoksulluk üzerindeki etkisini Johansen eş-bütünleşme ve Granger nedensellik testi yöntemlerini kullanarak incelemişlerdir. Çalışmada uzun dönemde dışa açıklığın ve DYY girişlerinin yoksulluğu azalttığı bulgusuna yer vermişlerdir. Granger nedensellik analizleri neticesinde de DYY ve yoksulluk arasında çift yönlü ve dışa açıklıktan yoksulluğa doğru da tek yönlü nedensellik ilişkisi tespit etmişlerdir. Bu sonuca ek olarak, dışa açıklıktan DYY girişlerine doğru da bir nedensellik bağıntısının olduğunu da belirtmişlerdir.

Marinho, Campelo, França, & Araujo (2017) Brezilya'nın stratejik sektörlerdeki altyapı harcamalarının çalışmalarında voksulluk üzerindeki etkisini incelemişlerdir. Çalışmanın analizinde, Brezilya'nın 1995-2011 dönemini kapsayan veri setinden yararlanmışlardır. Analiz yöntemi olarak GMM ve Granger nedensellik testi analiz yöntemlerinden yararlanmışlardır. Yapılan analizler sonucunda, altyapıya yapılan kamu yatırımları ile yoksulluk arasında önemli bir negatif ilişki tespit etmişlerdir. Ayrıca Granger nedensellik testi, elde edilen bu sonucun doğruluğunu güclendirdiğini ifade etmişlerdir. Bu sonuçlardan hareketle, yoksulluk yoğunluğuyla mücadelede sürdürülebilir büyüme, gelir dağılımı ve eğitimin yanı sıra altyapı yatırımlarını tesvik etmeye yönelik politikaların önemli olduğunu vurgulamışlardır.

Okwanya & Abah (2018) tarafından yapılan çalışmada, 12 Afrika ülkesinin 1981-2014 dönemini kapsayan verilerinden yararlanarak enerji tüketiminin yoksulluğun azaltılması üzerindeki etkisini araştırmışlardır. Tam Düzeltilmiş En Küçük Kareler (FMOLS) yöntemini kullanılarak hazırlanan çalışma sonucunda, enerji tüketimi ile yoksulluk düzeyi arasında uzun dönemli negatif bir ilişki olduğu sonucuna ulaşmışlardır. Bu sonuç, seçilen 12 Afrika ülkesinde yoksulluğun azaltılmasında enerjinin önemli bir konu olduğu hipotezini doğrulamaktadır. Bu sonuca ek olarak, Granger nedensellik testi analizinde enerji tüketiminden yoksulluğa doğru kısa dönemde tek yönlü bir nedensellik olduğunu ifade etmislerdir. Dolayısıyla, enerji tüketiminde yaşanacak artışların, yoksulluk düzeyinin düşmesine yol açtığı hipotezi yazarlarca doğrulanmıştır. Ayrıca enerji yatırımlarının artmasının enerji tüketmini artıracağı ve bu yolla yoksulluğun azaltılabileceği görüşünü ifade etmişlerdir.

Evcim, Güneş, & Karaalp Orhan (2019) ele aldıkları çalışmalarında, 8 MENA ülkesi (Cezayir, Mısır, İran, Irak, Fas, Suriye, Tunus, Yemen) ve Türkiye'nin 1990-2013 dönemini kapsayan verilerinden yararlanarak, yoksulluğu belirleyen sosyo-ekonomik, coğrafi ve cinsiyet eşitsizliği göstergelerini panel sabit etkiler modeli yöntemiyle incelemişlerdir. Analiz sonuçlarına göre, kalkınma, kişi başına düşen gelir, kadının işgücüne katılımı, eğitime katılım, kentleşme, sanayileşme ve ihracat değişkenlerindeki artışların ülkelerin yoksulluk oranlarını azalttığını belirtmişlerdir. Bu nedenle kamu ve özel sektör yatırımlarının bu değişkenler gözetilerek yapılmasının yoksulluk üzerinde önemli bir etki yaratacağı önerisinde bulunmuşlardır.

Galvão, Santos, Silva, & Silva (2020) ele aldıkları çalışmalarında Brezilya'nın Rio Grande do Norte eyaletinin Mato Grande bölgesinin 2018 ve 2019 yıllarını kapsayan verilerinden yararlanarak enerji ve yoksulluk ilişkisini rüzgar enerjisi yatırımları özelinde incelemişlerdir. Literatür taraması ve revizyonu, ikincil veri toplama ve saha araştırması yoluyla yapılan analizler sonucunda rüzgar enerjisinin, Brezilya'nın geri kalmış ve yoksul bölgesi olarak ele alınan bu bölgede yoksulluğu azaltacak bir etki yaratmadığını ifade etmişlerdir. Bu sonuca ek olarak, yapılan rüzgar enerjisi yatırımının bölgede yaşayan ailelerin kalkınma beklentisini olumsuz etkilediğini belirtmişlerdir.

Akinlo & Dada (2021) tarafından yapılan çalışmada, 39 Sahra Altı Afrika ülkesinin 1986-2018 dönemini kapsayan verileri vardımıyla, cevresel bozulma ve yoksulluğun azaltılması noktasında doğrudan yabancı yatırımların (DYY) rolünü incelemişlerdir. Çalışmada analiz yöntemi olarak dinamik GMM kullanmışlardır. Yapılan analizler sonucunda, yoksulluğun azalması insani gelişme endeksi ile ölçüldüğünde, doğrudan yabancı yatırım ve çevresel bozulmanın etkileşiminin yoksulluğun azaltılmasını artırdığını fakat yoksulluğun azaltılması, hane halkı nihai tüketim harcamaları ile ölcüldüğünde, doğrudan yabancı yatırım ile çevresel bozulma önlemleri arasındaki etkileşimin yoksulluğun azaltılmasına katkıda bulunmadığını ifade etmişlerdir. Bu sonuclara ek olarak yoksulluğun azalması ortalama yaşam süresi ile ölçüldüğünde ise, DYY ve karbondioksit (CO₂) salınımının voksulluğun azaltılmasında negatif etkiliyken, DYY'nin ve diğer çevresel bozulma göstergelerinin yoksulluğun azaltılması üzerinde hiçbir etkisi bulunmadığını vurgulamışlardır.

Dada & Akinlo (2021) tarafından ele alınan bir diğer çalışmada, benzer şekilde 1986-2018 dönemi için Sahra altı Afrika'da çevresel bozulmanın ve doğrudan yabancı yatırımların (DYY) yoksulluk ile ilşkisini incelemişlerdir. Çalışmada ampirik analiz için panel threshold regresyon vöntemini kullanmışlardır. Yapılan analiz sonucunda, DYY'nin yoksulluğu azaltma etkisinin çevresel bozulma ile azalmayacağını ifade etmişlerdir. Bu sonuca ek olarak, çevresel bozulmanın daha yüksek seviyelerinde (daha yüksek metan emisyonları ve nitröz oksit emisyonu seviyelerinde), yoksulluğun azaltılması üzerinde önemsiz bir etkiye sahip olduğu ve bunun tam aksine DYY'nin yoksulluğun azaltılmasına önemli ölçüde katkıda bulunduğuna dair çok güçlü kanıtlar olduğunu belirtmişlerdir. Dolayısıyla, DYY girişini azaltarak çevresel bozulmayı azaltmaya yönelik uygulanacak herhangi bir girişimin, bölgedeki yoksulluk oranlarını daha da kötüleştireceği ifade edilmiştir.

Rasoulinezhad & Taghizadeh-Hesary (2021)inceledikleri çalışmalarında 1992'den 2018'e kadar olan verileri kullanarak Bağımsız Devletler Topluluğu (BDT) bölgesindeki yoksulluk ve enerji geçişi arasındaki ilişkiyi test etmişlerdir. BDT'ye üye 12 ülkenin (Ermenistan, Azerbaycan, Beyaz Rusya, Gürcistan, Kazakistan, Kırgızistan, Moldova, Rusya, Tacikistan, Türkmenistan, Ukrayna ve Özbekistan) verileri yardımıyla analiz yapmışlardır. PMG sonuçlarına göre, yoksulluk, gelir eşitsizliği ve enerji geçişi arasında pozitif yönlü bir ilişki olduğu sonucunu ortaya koymuşlardır. Ayrıca Rusya, Kazakistan ve Azerbaycan gibi petrol ihraç eden ülkelerde yoksulluğun enerji geçişi ile ilişkisinin daha zayıf olduğunu tespit etmişlerdir. PMG sonuçlara ek olarak, nedensellik testi sonucuna göre BDT bölgesinde enerji geçişi, yoksulluk ve gelir eşitsizliği arasında çift yönlü ilişki olduğunu belirtmişlerdir. Dolayısıyla, özellikle küçük ekonomilerde pahalı enerji kullanımının ekonomik büyümeyi yavaşlatacağı ve yoksulluk oranını yükselteceği tezi çalışmada doğrulanmaktadır. Ucuz ve temiz enerjiye erişimin ve bu yönde yatırım yapılmasının, yoksulluğun azaltılması ve sürdürülebilir ve kapsayıcı büyümeye ulaşmak için oldukça önemli olduğunu gözlemlemişlerdir.

Medeiros, Riberio, & Amaral (2021) Brezilya'nın hanehalkı, belediye ve eyalet düzeylerinde altyapı yatırımları ile yoksulluk arasındaki ilişkiyi çalışmalarında incelemişlerdir. Hiyerarşik çok boyutlu lojistik regresyon modeli yöntemi kullanılarak yapılan analiz sonucunda, alt yapı yatırımları ile yoksulluk arasında negatif yönlü bir ilişki olduğu bulgusuna yer vermişlerdir. Ayrıca alt yapı yatırımlarının kalitesi arttıkça bu etkinin de gücünün artacağı ifade edilmiştir. Özellikle temel sanitasyon, internet, ulaşım, telefon hizmetleri ve elektriğe erişimde eşitsizlikleri azaltmayı amaçlayan kamu politikalarının yoksulluğu azalttığını vurgulamışlardır.

Cunha vd. (2021) Brezilya için gelir ve enerji üretim programının etkinliğini analiz etmek amacıyla çalışmayı hazırlamıştır. 2018 yılı anket verilerinden vararlanılarak çalışmanın veri analizinde triangulation yöntemi kullanılmıştır. Yapılan analiz sonucunda, geçmişte yapılan hataların tekrar edilmemesini engelleyecek, yenilebilir enerji yatırımlarının daha etkin kullanımını sağlayacak yatırımların Brezilya'da yoksulluğu önleyici etkisinin olacağını belirtmişlerdir. Bu sonuca ek olarak, yenilenebilir enerji yatırımlarının verimliliğini artıracak ve bina sakinlerinin ihtiyaçlarını daha iyi karşılayacak şekilde projelerin düzenlenecek olan de voksulluğun azaltılmasında önemli etkisi olacağını ifade etmişlerdir.

İlarslan (2021) gelişmekte olan ülkelerin yenilenebilir enerji yatırımlarının finansal belirleyicileri üzerine etkisini incelmiştir. Çalışmasında 19 gelişmekte olan ülkenin 1970-2019 dönemine ilişkin verilerinden yararlanmıştır. Method of Moments Quantile Regression (MM-QR) analiz yöntemi kullanılarak yapılan inceleme sonucunda, DYY ile yenilebilir enerji üretimi arasında negatif yönlü ilişki bulmuştur. Bu sonuç gelişmekte olan ülkelerde doğrudan yabancı yatırımların yenilebilir enerji üretimi yerine diğer enerji üretimlerinin finansmanı için yapıldığı anlamını taşıdığı ifade edilmiştir.

Son olarak, Barak (2022) yenilebilir ve yenilemez enerji tüketimi ile yoksulluk arasındaki ilişkiyi BRICS ülkeleri özelinde ele almıştır. 1991-2019 dönemi verilerinden yararlanılarak hazırlanan çalışmada panel ARDL yöntemi kullanılmıştır. Yapılan analizler sonucunda, yenilemez enerji tüketimi arttıkça yoksulluğun artığı fakat yenilebilir enerji tüketimi arttıkça yoksulluğun azaldığı bulgusuna yer vermiştir. Bu sonuçtan hareketle yenilenebilir enerji kaynaklarına ilişkin yatırımlarının artırılmasının yoksulluğun azaltılmasında katkıda bulunacağını ifade etmiştir.

Veri Seti ve Yöntem

Bu çalışmadaki veri seti, Brezilya için yoksulluğu temsilen nihai tüketim harcamaları, kamu-özel sektör enerji yatırımı, karbondioksit (CO₂) emisyonu, GSYH ile ilgili verileri içermektedir. Çizelge 1, bu değişkenlerin birimlerini ve karşılık gelen veri kaynaklarını göstermektedir. Bütün değişkenler kişi başına olarak alınmıştır. Veri seti yıllık olup 1994-2020 dönemini kapsamaktadır.

Table 1: Explanations of the Variables						
Değişkenler	Birim	Kaynak	Referans			
Yoksulluk (Poverty)	Cari ABD	Dünya	Sehrawat and Giri (2016), Nyasha, Gwenhure and			
foksulluk (Poverty)	Doları	Bankası	Odhiambo (2017), Sehrawat and Giri (2018)			
Kamu-Özel Enerji	Cari ABD	Dünya	Shahbaz vd. (2020)			
Yatırımları (Energy_Inv)	Doları	Bankası	Caglar vd. (2022)			
	Cari ABD	Dünya	Carza Rodriguez (2018) Solaria (2022)			
GSYH (GDP)	Doları	Bankası	Garza-Rodriguez (2018), Solarin (2022)			
CO ₂ emisyonu (CO ₂)	Milyon ton	BP	Dong vd. (2018), Caglar (2023), Ulussever vd. (2023),			
	iviny011 t011	DF	Umar vd. (2023)			

Çizelge 2: Tanımlayıcı istatistikler ve korelasyon matrisi Table 2: Descriptive Statistics And Correlation Matrix

Cizelge 1: Değiskenlere ait acıklamalar

Tuble 2. Descriptive statistics and correlation matrix							
InPoverty	InEnergy_Inv	InGDP	InCO ₂				
8.560314	3.267776	8.950880	-13.16151				
8.640384	3.397730	8.979270	-13.20439				
9.254962	5.005152	9.132118	-12.89715				
7.749363	-0.533029	8.765402	-13.40918				
0.494722	1.250020	0.125830	0.135836				
-0.194087	-1.541053	-0.047431	0.295944				
1.669352	5.280653	1.416770	2.160661				
2.161467	16.53835	2.830068	1.186674				
0.339347	0.000256	0.242917	0.552481				
27	27	27	27				
	Korelasyon Matrisi						
1							
0.5019	1						
0.9138	0.5634	1	0.				
0.8412	0.5607	0.9304	1				
	InPoverty 8.560314 8.640384 9.254962 7.749363 0.494722 -0.194087 1.669352 2.161467 0.339347 27 1 0.5019 0.9138	InPovertyInEnergy_Inv8.5603143.2677768.6403843.3977309.2549625.0051527.749363-0.5330290.4947221.250020-0.194087-1.5410531.6693525.2806532.16146716.538350.3393470.0002562727Korelasyon Matrisi110.501910.91380.5634	InPovertyInEnergy_InvInGDP8.5603143.2677768.9508808.6403843.3977308.9792709.2549625.0051529.1321187.749363-0.5330298.7654020.4947221.2500200.125830-0.194087-1.541053-0.0474311.6693525.2806531.4167702.16146716.538352.8300680.3393470.0002560.2429172727272727271110.5019110.91380.56341				

Değişkenlere ait tanımlayıcı istatistiklere ve korelasyon matrisine Çizelge 2'de yer verilmiştir. En yüksek ortalamaya sahip değişken 8.95 ile GSYH değişkenidir. Yoksulluk, kamuözel sektör enerji yatırımları ve CO₂ emisyonuna ait ortalamalar sırası ile 8.56, 3.26 ve -13.16'dır. Jarque-Bera istatistikleri değişkenlerin normal dağıldığını göstermektedir. Ayrıca, kamu-özel enerji yatırımları, GSYH ve CO₂ emisyonunu yoksulluğun bir göstergesi olan nihai tüketim harcamaları ile pozitif ilişkili olduğu korelasyon matrisinden anlaşılmaktadır.

Breziya'nın yoksulluğu kamu-özel sektör yatırımlarının, kişi başına gelirin ve çevresel bozulmanın bir fonksiyonu olarak aşağıdaki gibi modellenebilir:

 $\ln Poverty = f(\ln Energy_Inv, \ln GDP, \ln CO_2)_{(1)}$

Denklem 1, doğrusal formda aşağıdaki gibi belirtilebilir:

 $\ln Poverty_{t} = \beta_{0} + \beta_{1} \ln Energy - Inv_{t} + \beta_{2} \ln GDP_{t} + \beta_{3} \ln CO_{2t} + \varepsilon_{t}$ (2)

Burada t alt indisi bu çalışmada ele alınan zaman dilimini ifade etmektedir (t=1994,...,2020). Denklem (2)'de Poverty yoksulluğu ifade eder (kişi başına nihai tüketim harcamaları temsil etmek için kullanılır), GDP, kişi başına gayri safi yurtiçi hasılayı ifade etmektedir (ekonomik büyümeyi temsil etmek için kullanılır). Energy_Inv, kamu-özel sektör enerji yatırımlarını temsil etmektedir. Çevresel bozulma yerine kullanılan CO₂ emisyonu, kişi başına karbondioksit emisyonunu temsil etmektedir. β_1 , β_2 , β_3 parametreleri tahmin edilecek katsayılardır.

Esneklik parametrelerini tahmin etmek için Energy_Inv, GDP ve CO_2 değişkenlerinin doğal logaritması (In) alınmıştır.

Değişkenler arasındaki uzun ve kısa dönemli ilişkiyi tahmin etmek amacıyla Pesaran vd. (2001) tarafından geliştirilen ARDL modeli uygulanmıştır. ARDL modeli küçük veri seti için daha tutarlı sonuçlar sağlamaktadır. ARDL yaklaşımında, değişkenlerin aynı seviyede bütünleşmesine gerek yoktur. Çünkü bağımlı değişken I(1) iken bağımsız değişkenler I(0) veya I(1) düzeyinde olduğu sürece gerçekleştirilebilir (Ali vd., 2021; Rauf vd., 2018).

Yoksulluk, kamu-özel sektör enerji yatırımları, ekonomik büyüme ve çevresel bozulma arasındaki ilişki aşağıdaki ARDL denklemi ile temsil edilmektedir;

 $\Delta \ln Poverty_t = \alpha_0 + \alpha_1 \ln Poverty_{t-1} + \alpha_2 \ln Energy _ Inv_{t-1} + \alpha_3 \ln GDP_{t-1}$

$$+ \alpha_{4} \ln CO_{2t-1} + \sum_{k=1}^{m} \beta_{1k} \ln Poverty_{t-k} + \sum_{k=1}^{m} \beta_{2k} \ln Energy - Inv_{t-k} + \sum_{k=1}^{m} \beta_{3k} \ln GDP_{t-k}$$

$$+ \sum_{k=1}^{m} \beta_{4k} \ln CO_{2t-k} + \varepsilon_{t}$$
(3)

Denklem (3)'te Δ fark operatörüdür. α_0 sabit terimdir, $\alpha_1, \alpha_2, \alpha_3, \alpha_4$ uzun dönem katsayılardır. $\beta_1, \beta_2, \beta_3, \beta_4$

hata düzeltme dinamiklerini temsil etmektedir. \mathcal{E}_t hata terimidir k, her değişken için gecikme sayısını göstermektedir. ARDL modeli, uzun dönemli ilişkiyi belirlemek için F-istatistik değerlerini kullanır. Boş hipotez, "değişkenler arasında eş-bütünleşme yoktur", alternatif hipotez "değişkenler arasında eş-bütünleşme vardır"

şeklindedir. Eş-bütünleşme olup olmamasına, F istatistiği alt ve üst sınır değerleri ile karşılaştırılarak karar verilir. F istatistiği alt sınırdan küçükse, eş-bütünleşme olmadığına karar verilir. Buna karşılık, F-istatistikleri üst sınırdan büyükse, değişkenler arasında uzun dönemli ilişki olduğuna karar verilir. F istatistiği alt ve üst sınır arasında olması durumunda eş-bütünleşme hakkında kesin bir karar verilemez (Ozturk & Acaravci, 2010; Ponce vd., 2021).

Uzun dönemde eş-bütünleşme doğrulandıktan sonra Hata Düzeltme Terimi (ECT) incelenir. ECT aşağıdaki denklem ile gösterilebilir:

Denklem (4)'te ECTt-1, uzun dönemli denge

$$\Delta \ln Poverty_{t} = \beta_{0} + \sum_{k=1}^{m} \beta_{1k} \Delta \ln Poverty_{t-k} + \sum_{k=1}^{m} \beta_{2k} \Delta \ln Energy_{-} Inv_{t-k} + \sum_{k=1}^{m} \beta_{3k} \Delta \ln GDP_{t-k} + \sum_{k=1}^{m} \beta_{4k} \Delta \ln CO_{2k} + \phi ECT_{t-1} + \varepsilon_{t-1}$$
(4)

 $\stackrel{+\sum \rho_{4i} \Delta \ln \mathcal{O}_{2i-k} + \varphi_{EC} I_{i-1} + \varepsilon_{i}}{\text{llişkisinden sapan denge dışı}}$ ilişkisinden sapan denge dışı hatayı yansıtan eş-bütünleşme denkleminin hesaplanan hata terimini temsil eder. φ , ayarlama parametrelerini ve

Çizelge 3: ADF ve PP birim kök testi sonuçları Table 3: ADF and PP Unit Root Test Results değişkenlerin uzun vadeli denge ilişkisine dönme hızını tanımlar (Ponce vd., 2021). ECT katsayısının negatif ve istatiksel olarak anlamlı olması beklenmektedir (Rahman & Kashem, 2017; Shahbaz vd., 2013).

Bulgular

ARDL modeli, bağımlı değişken I(1), bağımsız değişkenler ya seviyede ya da birinci farkta ya da her ikisinde de durağan olan değişkenler için kullanılabilmektedir. Bu nedenle, ADF, PP birim kök testleri kullanılmış ve iki teste ait sonuçları Çizelge 3'te verilmiştir. Her iki testin sonucuna göre enerji yatırımları hariç bütün değişkenler düzey değerlerinde birim kök içermektedir yani durağan değildir. Ancak değişkenlerin birinci farkı alındığında serilerin durağan hale geldiği görülmektedir.

Dožiskoplar		ADF		РР
Değişkenler	Sabit	Sabit ve Trend	Sabit	Sabit ve Trend
		Düzey		
InPoverty	-1.1598	-1.5114	-1.6367	-1.4025
mpoverty	(0.6751)	(0.7981)	(0.4503)	(0.8360)
	-3.4478 ^b	-3.4065 ^c	-3.4603 ^b	-3.2697 ^c
InEnergy_Inv	(0.0183)	(0.0723)	(0.0178)	(0.0935)
	-1.4660	0.0023	-1.4154	-0.4168
InGDP	(0.5345)	(0.9940)	(0.5592)	(0.9812)
h-00	-1.9169	-0.6509	-1.8909	-1.0060
InCO ₂	(0.3198)	(0.9665)	(0.3311)	(0.9258)
		Birinci Fark		
InPoverty	-3.6895	-3.6191 ^b	-3.6843 ^b	-3.6176 ^b
	(0.0108) ^b	(0.0484)	(0.0110)	(0.0486)
la Francis - Javi	-7.2562ª	-7.4112ª	-7.7579ª	-11.5838ª
InEnergy_Inv	(0.0000)	(0.0000)	(0.0000)	(0.0000)
	-3.1566 ^b	-3.3567 ^c	-3.1566 ^b	-3.3567 ^c
InGDP	(0.0351)	(0.0803)	(0.0351)	(0.0803)
1=00	-3.8244ª	-4.1464 ^b	-3.7871ª	-4.1396 ^b
InCO ₂	(0.0079)	(0.0163)	(0.0086	(0.0166)
^{, b,c.} sırasıyla %1, %5 v	ve %10 düzeyinde an	amlılığı ifade etmektedir.	Parantez içindeki ifac	deler olasılık değerlerini
		temsil etmektedir.		

Çizelge 4: ARDL eş-bütünleşme testi ve tanısal test sonuçları Table 4: ARDL Cointegration Test And Diagnostic Test Results.

			I(O)	l(1)		
F-statistic	k	10%	2.676	3.586		
5.141821	3	5%	3.272	4.306		
		1%	4.614	5.966		
Tanısal ⁻	Test Sonuçları					
Tset		İstatistik	Olas	sılık		
Jarque-Bera		1.257	0.53	331		
Breusch-Godfrey Serial Correlation LM T	est	2.109	0.23	368		
Heteroskedasticity Test: Breusch-Pagan-Go	odfrey	1.030	0.52	245		
Ramsey-Rest Test		1.290	0.30	075		
Not: k bağımsız değişken sayısını, I(0) alt sınır değeri, I(1) üst sınır değerini temsil etmektedir.						

Serilerin durağanlığı kontrol edildikten sonra, Çizelge 4'te ARDL eş-bütünleşme testinin sonuçları sunulmaktadır. Hesaplanan F-istatistikleri, üst limit değerlerinden daha yüksektir. Sonuç olarak %1 anlamlılık düzeyinde, değişkenler arasında uzun dönemli bir eş-bütünleşme ilişkisi kuran alternatif hipotez kabul edilir, yani değişkenler zaman içinde birlikte hareket etmektedir. ARDL modeline ait tanısal test sonuçlarına göre, normallik testi kalıntıların normal dağıldığını (Jarque-Bera), Otokorelasyon (Breusch-Godfrey Serial Correlation LM Test), değişen varyans (Breusch-Pagan-Godfrey) sorununun olmadığını ve Ramsey-Reset testi modellerin doğru bir şekilde belirlendiğini ortaya koymaktadır.

Eş-bütünleşme testinin bulguları, yoksulluk, kamu-özel sektör yatırımları, ekonomik büyüme ve çevresel bozulma arsındaki uzun dönemli ilişkiyi ortaya koymaktadır. Bu nedenle, uzun dönem katsayıları tahmin etmek için ARDL yaklaşımı kullanılır. Çizelge 5 elde edilen sonuçları göstermektedir. Bu çalışmada, kişi başına tüketim harcamalarının bir göstergesi olarak yoksulluğun azaltılması kullanılmıştır. Sehrawat ve Giri'nin (2018) çalışmalarında belirttiği gibi, kişi başına tüketim harcaması yoksulluğun azaltılması anlamına gelmektedir. Kişi başına kamu-özel sektör enerji yatırımlarındaki bir artış kişi başına tüketim harcamalarını artırmaktadır ve %5 anlamlılık düzeyinde istatistiksel olarak doğrulanmıştır. Kişi başına gelirde yaşanan bir artış kişi başına tüketim harcamalarını pozitif etkilemektedir ve %1 düzeyinde istatistiksel olarak anlamlıdır. Bu sonuç, kişi başına gelirin yoksulluğun azaltılmasına yardımcı olduğunu ima etmektedir. Çevresel bozulmanın yoksulluk üzerindeki etkisi ise istatistiksel olarak anlamsız çıkmıştır.

Uzun dönemli analizin ardından model değişkenleri arasındaki kısa dönemli ilişkiye ait sonuçlar Çizelge 6'da verilmiştir. Teori ile uyumlu olarak ECT katsayısı negatif işaretlidir ve %1 düzeyinde istatiksel olarak anlamlıdır. ECT katsayısının değeri -0.92'dir. Bu da güçlü ve dengeye daha hızlı uyum sağlama hızını göstermektedir. Böylece, dengesizliğin yaklaşık bir dönem (bir yıl) içinde uzun dönemli dengeye geri döneceğini göstermektedir.

Çizelge 5: Uzun dönem katsayı tahminleri

Table 5: Long-run coefficient estimates

Değişkenler	Katsayı	Std. Hata	t-istatistik	Olasılık
InEnergy_Inv	0.1541	0.0558	2.7611	0.0328
InGDP	3.953	0.5698	6.9376	0.0004
InCO ₂	-0.9538	0.6823	-1.3977	0.2117
Constant	-39.8538	13.2492	-3.0079	0.0238

Çizelge 6: Hata düzeltme terimi tahminleri

Table 6: Error correction term estimates

Değişkenler	Katsayı	Std. Hatar	t-istatistik	Olasılık
D(InPoverty(-1))	0.5648	0.063231	8.933418	0.0001
D(InPoverty(-2))	0.5219	0.116012	4.499443	0.0041
D(InPoverty(-3))	0.4870	0.108391	4.493595	0.0041
D(InEnergy_Inv)	0.1465	0.019529	7.505077	0.0003
D(InEnergy_Inv(-1))	-0.0316	0.010159	-3.115020	0.0207
D(InEnergy_Inv(-2))	-0.0329	0.007529	-4.374771	0.0047
D(InGDP)	1.0749	0.650363	1.652809	0.1495
D(InGDP(-1))	-6.1112	0.900198	-6.788740	0.0005
D(InGDP(-2))	-4.8547	0.596841	-8.134020	0.0002
D(InGDP(-3))	-1.5702	0.759093	-2.068640	0.0840
D(InCO ₂)	1.5953	0.359943	4.432234	0.0044
D(InCO ₂ (-1))	1.4713	0.474810	3.098900	0.0211
ECT(-1)	-0.9221	0.140871	-6.545877	0.0006



Şekil 1: CUSUM ve CUSUMQ Grafikleri Figure 1: CUSUM and CUSUMQ Charts
Modelin kararlılığı, CUSUM ve CUSUMQ (Brown vd., 1975) testleri kullanılarak kontrol edilmiştir. CUSUM ve CUSUMQ grafikleri, çizgilerin katsayıların kararlılığını gösteren %95'lik kritik sınır çizgilerini göstermektedir. CUSUM ve CUSUMQ değerlerinin kritik sınır içerisinde salındığı Şekil 1'de görülmektedir. Dolayısıyla, tahmin edilen modele ait katsayıların istikrarlı olduğu tespit edilmiştir.

Sonuç ve Değerlendirme

Sanayi devriminden beri enerji, üretim ve tüketimde yoğun bir şekilde kullanılmaktadır. Dolayısıyla enerji ile yoksulluk, ekonomik büyüme, çevre kirliliği, istihdam ve işsizlik, sağlık vb. birçok değişken ilişkilidir. Enerji sektörüne yapılacak olan yatırımlar ilgili değişkenleri farklı boyutlarda etkileyebilir. Bu etkinin gözlenebilmesi adına bu calışmada Brezilya'da kamu-özel sektör enerji yatırımlarının yoksulluk ile ilişkisi ARDL yöntemi ile ortaya konulmaya çalışılmıştır. ARDL yönteminden elde edilen bulgulardan hareketle değişkenler arasında uzun dönemli bir ilişki olduğu sonucuna ulaşılmıştır. Uzun dönemde kamu-özel sektör enerji yatırımlarında meydana gelecek artışın, yoksulluğu azaltacağı yapılan analiz sonuçlarında doğrulanmıştır. Thiam (2011), Okwanya vd. (2015), Aghaei & Lin Lawell (2020), Tsaurai (2018), Kousar & Shabbir (2021) enerjinin yoksulluğu azaltmada kilit bir rol oynadığını belirtmişlerdir ve analizler sonucunda elde edilen bulgular bu calışmaların sonuclarıyla da uyumludur.

Dünya Bankası (2015), her ne kadar yenilenebilir enerji sektörü yatırımlarında sermaye gereksinimi yüksek ve riskli koşullarda finansman bulmak zor olsa da bu engelleri aşmak için politika teşviklerinin uygulanabileceğini belirtmiştir. Bu yatırımların yapılabilmesi için Brezilya'da başarılı bir politik sürecin yürütüldüğü ifade edilmiştir. Günümüzde hem ülkeler özelinde hem de küresel boyutta enerji özellikle yenilenebilir enerji büyümenin sağlanmasında ve çevre kirliliğinin azaltılmasında önemli rol oynamaktadır. Yenilenebilir enerjinin avantajlarının fosil yakıtlardan daha fazla olması nedeniyle yenilenebilir enerji kaynaklarına yapılacak yatırımlar ekonomik büyümenin sağlanmasından ve iş yaratama potansiyelinin fazla olmasından dolayı yoksulluğu azaltmada önemli bir etken olabilir. Bu nedenle, sürdürülebilir ekonomik büyümeyi sağlamak ve insan refahındaki eşitsizlikle mücadele için daha temiz ve modern enerji kaynaklarına yönelik enerji politikalarını hayata geçirmek kritik öneme sahiptir.

Extended Summary

Aim and Scope

There are 17 basic goals that the United Nations (UN) addresses within the framework of the sustainable development program. As it can be seen from this ranking made according to the degree of importance, the elimination of poverty comes first among the United Nations sustainable development goals. These goals, which were created to live in peace and prosperity for people and the planet, now and in the future, were accepted by all United Nations member states in 2015. It is known that both the UN and all the

such an important issue throughout the world, especially in underdeveloped and developing countries. The first solution for reducing poverty, which has deepened with global warming, is to give priority to policies that encourage economic growth. Countries aim to stimulate their economies and reduce poverty by turning to real production and industrialization with various supports and incentives. However, in the case of intensive implementation of growthoriented policies, the problem of destruction of the environment and natural resources arises. Attention should be paid to the issues of relieving the additional pressure on natural resources and the environment and establishing accessible and clean energy resources in the development process, which are among the UN's sustainable development goals, drawing attention to this problem. In particular, it is important to focus on renewable energy investments in order to realize the sustainable development goals of the UN. According to World Bank data, those earning less than \$2.15 a day are defined as poor, taking into account 2017 purchasing power parity and percentage of the population, Brazil's poverty rate is 5.8% in 2021. In the calculation made with the same method, the poverty rate of countries with high-income levels was found to be 0.6%. It ranks 6th in electricity consumption in the world after China, America, India, Russia and Japan. Although Brazil's poverty rate has decreased from the past years to the present, it is aimed to examine this country because it is far above the world average and because it is not used enough despite its high renewable energy potential.

countries of the world act jointly in order to reduce and

eliminate poverty. It is important for the study to examine

Literature

In this part of the study, previously published studies examining the relationship between public and private sector energy investments and poverty are included. Since the subject of the study is not among the subjects that are frequently studied in the literature, in addition to the studies similar to the direct study subject, information on the studies dealing with the relationship between energy investments, infrastructure investments, foreign direct investments (FDI) and poverty is also included in the literature summary. In the literature summary, there are studies that examine more than one country together, as well as studies that directly address the Brazilian economy, of the authors; information about which method they used, which period of data they used, which analysis method they used and what findings they reached are included.

Methodology

The data set in this study includes data on final consumption expenditures, public-private sector energy investment, carbon dioxide (CO2) emissions, GDP, representing poverty in Brazil. All variables are taken per person. The data set is annual and covers the period 1994-2020. All relevant diagnostic tests were performed and it was determined that there was no problem according to the analysis results. In order to estimate the long- and short-term

relationship between the variables, Pesaran et al. (2001) ARDL model was applied. Finally, the stability of the model was checked using the CUSUM and CUSUMQ tests. The CUSUM and CUSUMQ graphs show the 95% critical boundary lines showing the stability of the coefficients of the lines. It has been observed that CUSUM and CUSUMQ values oscillate within the critical limit. Therefore, it has been determined that the coefficients of the estimated model are stable.

Findings

The findings of the cointegration test reveal the long-run relationship between poverty, public-private investment, economic growth, and environmental degradation. Therefore, the ARDL approach is used to estimate the longrun coefficients. An increase in per capita public-private energy investments increases per capita consumption expenditures and is statistically confirmed at the 5% significance level. An increase in per capita income positively affects per capita consumption expenditures and is statistically significant at the 1% level. This result implies that public-private energy investments and per capita income per capita help reduce poverty. The effect of environmental degradation on poverty was statistically insignificant. Consistent with the theory, the ECT coefficient has a negative sign and is statistically significant at the 1% level. It shows that the imbalance will return to the long-term equilibrium in about a period (one year).

Conclusion

Based on the findings obtained from the ARDL method, it was concluded that there is a long-term relationship between the variables. It has been confirmed in the results of the analysis that the increase in public-private sector energy investments in the long term will reduce poverty. Thiam (2011), Okwanya et al. (2015), Aghaei & Lin Lawell (2020), Tsaurai (2018), Kousar & Shabbir (2021) stated that energy plays a key role in reducing poverty, and the findings obtained as a result of the analyzes are also consistent with the results of these studies. The World Bank (2015) stated that although it is difficult to find financing for renewable energy sector investments with high capital requirements and risky conditions, policy incentives can be applied to overcome these obstacles. It was stated that a successful political process was carried out in Brazil in order to make these investments. Today, both in countries and globally, energy, especially renewable energy, plays an important role in ensuring growth and reducing environmental pollution. Since the advantages of renewable energy are greater than fossil fuels, investments in renewable energy sources can be an important factor in reducing poverty due to economic growth and job creation potential. Therefore, it is critical to implement energy policies towards cleaner and modern energy sources in order to achieve sustainable economic growth and combat inequality in human welfare.

Kaynakça

Aghaei, M., & Lin Lawell, C. Y. C. (2020). Energy, Economic Growth, Inequality, and Poverty in Iran. *The Singapore Economic Review*, 67(2), 733–754. https://doi.org/10.1142 /S0217590820500198

- Akinlo, T., & Dada, J. T. (2021). The moderating effect of foreign direct investment on environmental degradation-poverty reduction nexus: evidence from sub-Saharan African countries. *Environment, Development and Sustainability, 23*(11), 15764– 15784.
- Ali, M. U., Gong, Z., Ali, M. U., Wu, X., & Yao, C. (2021). Fossil energy consumption, economic development, inward FDI impact on CO2 emissions in Pakistan: Testing EKC hypothesis through ARDL model. *International Journal of Finance & Economics*, 26(3), 3210–3221. https://doi.org/10.1002 /IJFE.1958
- Alinsato, A. S. (2015). Globalization, poverty and role of infrastructures. *Journal of Economics and Political Economy*, 2(1s), 197–212.
- Baloch, M. A., Danish, Khan, S. U. D., Ulucak, Z. Ş., & Ahmad, A. (2020). Analyzing the relationship between poverty, income inequality, and CO2 emission in Sub-Saharan African countries. *Science of the Total Environment*, 740. https://doi.org/10.1016/j.scitotenv.2020.139867
- Barak, D. (2022). The Impact of Income Inequality, Renewable Energy Consumption, Non-Renewable Energy Consumption and Per Capita Income on Poverty: Evidence from BRICS Economies. *Ekonomika*, 101(1), 62–83.
- Brown, R. L., Durbin, J., & Evans, J. M. (1975). Techniques for Testing the Constancy of Regression Relationships over Time. *Journal of the Royal Statistical Society. Series B (Methodological)*, 37(2), 149–192. http://www.jstor.org/stable/2984889
- Caglar, A. E. (2023). Can nuclear energy technology budgets pave the way for a transition toward low-carbon economy: insights from the United Kingdom. Sustainable Development, 31(1), 198–210.
- Caglar, A. E., Zafar, M. W., Bekun, F. V., & Mert, M. (2022). Determinants of CO2 emissions in the BRICS economies: The role of partnerships investment in energy and economic complexity. Sustainable Energy Technologies and Assessments, 51, 101907. https://doi.org/10.1016/J.SETA.2021.101907
- Cunha, F. B. F., Mousinho, M. C. A. de M., Carvalho, L., Fernandes, F., Castro, C., Silva, M. S., & Torres, E. A. (2021). Renewable energy planning policy for the reduction of poverty in Brazil: lessons from Juazeiro. *Environment, Development and Sustainability*, 23(7), 9792–9810. https://doi.org/10.1007/S10668-020-00857-0/FIGURES/9
- Dada, J. T., & Akinlo, T. (2021). Foreign direct investment and poverty reduction in sub-Saharan Africa: does environmental degradation matter? *Future Business Journal 2021 7:1*, 7(1), 1– 10. https://doi.org/10.1186/S43093-021-00068-7
- Dong, K., Sun, R., & Dong, X. (2018). CO2 emissions, natural gas and renewables, economic growth: Assessing the evidence from China. Science of The Total Environment, 640–641, 293–302. https://doi.org/10.1016/J.SCITOTENV.2018.05.322
- EIA. (2021). 2021 Brazil Primary Energy Data. International U.S. Energy Information Administration . https://www.eia.gov/ international/overview/country/BRA
- EPE. (2019). Plano Decenal de Expansão de Energia PDE. Empresa de Pesquisa Enérgita. https://www.epe.gov.br /sitespt/publicacoes-dados-abertos/publicacoes/ Documents/PDE 2029.pdf
- Evcim, N., Güneş, S., & Karaalp Orhan, H. S. (2019). Yoksulluk ve ekonomik göstergeler arasındaki ilişki: Mena bölgesi analizi. *Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 36*, 291–310.
- Faridi, M. Z., Chaudhry, M. O., & Azam, A. (2018). Do Economic Development, Urbanization and Poverty matter for Environmental Degradation ? Evidence from Pakistan. 38(1), 262–287.
- Ferreira, F. H. G., Lanjouw, P., & Neri, M. (2003). A robust poverty profile for Brazil using multiple data sources. *Revista Brasileira de Economia*, 57(1), 59–92. https://doi.org/10.1590/S0034-71402003000100003

- Ferreira, F. H. G., Leite, P. G., & Ravallion, M. (2010). Poverty reduction without economic growth?: Explaining Brazil's poverty dynamics, 1985–2004. *Journal of Development Economics*, 93(1), 20–36. https://doi.org/10.1016/ J.JDEVECO.2009.06.001
- Fosu, A. K. (2017). Growth, inequality, and poverty reduction in developing countries: Recent global evidence. *Research in Economics*, 71(2), 306–336. https://doi.org/10.1016/ J.RIE.2016.05.005
- Galvão, M. L. de M., Santos, M. A. dos, Silva, N. F. da, & Silva, V. P. da. (2020). Connections Between Wind Energy, Poverty and Social Sustainability in Brazil's Semiarid. Sustainability 2020, Vol. 12, Page 864, 12(3), 864. https://doi.org/10.3390/SU12030864
- Garza-Rodriguez, J. (2018). Poverty and Economic Growth in Mexico. *Social Sciences 2018, Vol. 7, Page 183, 7*(10), 183. https://doi.org/10.3390/SOCSCI7100183
- Haider, L. J., Boonstra, W. J., Peterson, G. D., & Schlüter, M. (2018). Traps and Sustainable Development in Rural Areas: A Review. *World Development*, 101, 311–321. https://doi.org/10.1016/j.worlddev.2017.05.038
- Huang, Y., Chen, C., Su, D., & Wu, S. (2020). Comparison of leadingindustrialisation and crossing-industrialisation economic growth patterns in the context of sustainable development: Lessons from China and India. *Sustainable Development*, 28(5), 1077– 1085. https://doi.org/10.1002 /SD.2058
- İlarslan, K. (2021). Gelişmekte Olan Ülkelerde Yenilenebilir Enerji Yatırımlarının Finansal Belirleyicileri Üzerine Ekonometrik Bir Analiz. *Ekonomi Politika ve Finans Araştırmaları Dergisi, 6*(IERFM Özel Sayısı), 79–96.
- Jin, G., Guo, B., & Deng, X. (2020). Is there a decoupling relationship between CO2 emission reduction and poverty alleviation in China? *Technological Forecasting and Social Change*, *151*(119856), 1–10. https://doi.org/10.1016/ j.techfore.2019.119856
- Koçak, E., & Çelik, B. (2022). The nexus between access to energy, poverty reduction and PM2.5 in Sub-Saharan Africa: New evidence from the generalized method of moments estimators. *Science of The Total Environment, 827*, 154377. https://doi.org/10.1016/J.SCITOTENV.2022.154377
- Kousar, S., & Shabbir, A. (2021). Analysis of environmental degradation mechanism in the nexus among energy consumption and poverty in Pakistan. *Environmental Science* and Pollution Research, 28(22), 27528–27541. https://doi.org/10.1007/S11356-020-12140-W/FIGURES/3
- Marinho, E., Campelo, G., França, J., & Araujo, J. (2017). Impact of infrastructure expenses in strategic sectors for Brazilian poverty. *EconomiA*, *18*(2), 244–259.
- Medeiros, V., Riberio, R. S. M. R., & Amaral, P. V. M. do. (2021). Infrastructure and household poverty in Brazil: A regional approach using multilevel models. *World Development*, *137*, 105118.
- Nakabashi, L. (2018). Poverty and economic development: Evidence for the Brazilian states. *EconomiA*, *19*(3), 445–458.
- Nyasha, S., Gwenhure, Y., & Odhiambo, N. M. (2017). Poverty and Economic Growth in Ethiopia: A multivariate causal linkage. *The Journal of Developing Areas*, *51*(1), 343–359. https://www.jstor.org/stable/26415711
- Okwanya, I., & Abah, P. O. (2018). Impact of energy consumption on poverty reduction in Africa. *CBN Journal of Applied Statistics* (*JAS*), *9*(1), 5.
- Okwanya, I., Moses, O., & Alhassan, A. (2015). Economic linkages between energy consumption and poverty reduction: Implication on sustainable development in Nigeria. International Journal of Innovative Social Sciences & Humanities Research, 3(2), 113–120. www.seahipub.org

- Ozturk, I., & Acaravci, A. (2010). The causal relationship between energy consumption and GDP in Albania, Bulgaria, Hungary and Romania: Evidence from ARDL bound testing approach. *Applied Energy*, *87*(6), 1938–1943. https://doi.org/10.1016/ J.APENERGY.2009.10.010
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289–326. https://doi.org/ 10.1002/JAE.616
- Ponce, P., Del Río-Rama, M. de la C., Álvarez-García, J., & Oliveira, C. (2021). Forest Conservation and Renewable Energy Consumption: An ARDL Approach. *Forests 2021, Vol. 12, Page* 255, 12(2), 255. https://doi.org/10.3390 /F12020255
- Rahman, M. M., & Kashem, M. A. (2017). Carbon emissions, energy consumption and industrial growth in Bangladesh: Empirical evidence from ARDL cointegration and Granger causality analysis. *Energy Policy*, *110*, 600–608. https://doi.org/10.1016/J.ENPOL.2017.09.006
- Rasoulinezhad, E., & Taghizadeh-Hesary, F. (2021). Poverty reduction and energy transition in the commonwealth of independent states (CIS). Içinde *Poverty Reduction for Inclusive Sustainable Growth in Developing Asia* (ss. 211–229). Springer.
- Rauf, A., Zhang, J., Li, J., & Amin, W. (2018). Structural changes, energy consumption and carbon emissions in China: Empirical evidence from ARDL bound testing model. *Structural Change* and *Economic Dynamics*, 47, 194–206. https://doi.org/10.1016/J.STRUECO.2018.08.010
- Şahbaz, A., Buluş, A., & Kaleci, F. (2016). Dışa açıklık, doğrudan yabancı yatırımlar ve yoksulluk ilişkisi: Türkiye örneği. *Gaziantep* University Journal of Social Sciences, 15(4), 1106–1117.
- Sehrawat, M., & Giri, A. K. (2016). Financial development and poverty reduction in India: An empirical investigation. *International Journal of Social Economics*, 43(2), 106–122. https://doi.org/10.1108/IJSE-01-2014-0019/FULL/PDF
- Sehrawat, M., & Giri, A. K. (2018). The impact of financial development, economic growth, income inequality on poverty: evidence from India. *Empirical Economics*, 55(4), 1585–1602. https://doi.org/10.1007/s00181-017-1321-7
- Şeyma Erdik, S., & Temurlenk, M. (2023). İklim Değişikliğinin Gelişmişlik ve Bölgesel Farklılıklar Bağlamında Tarımsal Katma Değer Üzerine Etkisi: Akdeniz Ülkeleri Üzerine Bir Panel Veri Analizi. *Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 24(2), 227–240.
- Shahbaz, M., Hye, Q. M. A., Tiwari, A. K., & Leitão, N. C. (2013). Economic growth, energy consumption, financial development, international trade and CO2 emissions in Indonesia. *Renewable* and Sustainable Energy Reviews, 25, 109–121. https://doi.org/10.1016/J.RSER.2013.04.009
- Shahbaz, M., Raghutla, C., Song, M., Zameer, H., & Jiao, Z. (2020). Public-private partnerships investment in energy as new determinant of CO2 emissions: The role of technological innovations in China. *Energy Economics*, *86*, 104664. https://doi.org/10.1016/J.ENECO.2020.104664
- Solarin, S. A. (2022). Modelling Two Dimensions of Poverty in Selected Developing Countries: The Impact of Fossil Fuel Subsidies. *Social Indicators Research*, 160(1), 357–379. https://doi.org/10.1007/S11205-021-02815-3/TABLES/7
- Thiam, D. R. (2011). Renewable energy, poverty alleviation and developing nations: Evidence from Senegal. *Journal of Energy in Southern Africa*, 22, 23–34. http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1021-447X2011000300004&nrm=iso
- Tsaurai, K. (2018). Investigating The Impact Of Foreign Direct Investment On Poverty Reduction Efforts in Africa. *Revista Galega de Economía*, 27(2), 139–154. https://doi.org/10. 15304/rge.27.2.5664

- Ulussever, T., Kılıç Depren, S., Kartal, M. T., & Depren, Ö. (2023). Estimation performance comparison of machine learning approaches and time series econometric models: evidence from the effect of sector-based energy consumption on CO2 emissions in the USA. *Environmental Science and Pollution Research*, *30*(18), 52576–52592.
- Umar, M., Awosusi, A. A., Adegboye, O. R., & Ojekemi, O. S. (2023). Geothermal energy and carbon emissions nexus in leading geothermal-consuming nations: Evidence from nonparametric analysis. *Energy & Environment*, 0958305X231153972.
- United Nations. (2022). Sustainable Development Goals. https://unstats.un.org/sdgs
- World Bank. (2015, Temmuz 28). What you need to know about energy and poverty. https://blogs.worldbank.org /voices/whatyou-need-know-about-energy-and-poverty
- World Bank. (2021). Poverty headcount ratio at \$2.15 a day (2017 PPP) (% of population) | Data. Içinde *Poverty headcount ratio at* \$2.15 a day (2017 PPP) (% of population). https://data.worldbank.org/indicator/SI.POV.DDAY
- Yang, X., He, L., Xia, Y., & Chen, Y. (2019). Effect of government subsidies on renewable energy investments: The threshold effect. *Energy Policy*, *132*, 156–166. https://doi.org/10.1016 /J.ENPOL.2019.05.039



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Determining The Impact of Green Distribution Activities On Perceived Business Performance: Kocaeli Logistics Enterprises Application

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*Corresponding author **Research Article** ABSTRACT These days, it's crucial to practice environmental awareness, energy conservation, and resource preservation. History Consumers today favor goods with high recycling rates and low environmental impact. Businesses that adopt social consciousness, are conscious of their social responsibilities, and work to satisfy customer expectations Received: 28/04/2023 conduct their operations within the parameters of green marketing. Many operations, including green Accepted: 21/09/2023 distribution activities, might benefit financially from reducing their use of fuel, packaging, and distribution routes.Enterprises can achieve performance efficiency through the selection of alternate distribution routes by logistics companies and the repurposing of spent packaging through reverse logistics. On the other side, in today's market, corporations use performance measurements to obtain a competitive advantage. Additionally, performance metrics help organizations guarantee customer happiness. With this in mind, the goal of this study is to ascertain how green distribution practices affect corporate success. It also aims to find out if there is a Jel Code:M30, M31 connection between perceived business performance and green distribution initiatives. The Kocaeli Chamber of Commerce provided a list of businesses engaged in the logistics industry in the province of Kocaeli, which was used to estimate the study's population. There are 102 companies on the list in this sense. Face-to-face interviews were conducted with all of these businesses, and a thorough census sampling was done. Face-to-face interviews with these companies' senior managers were conducted. From these companies, 86 senior managers responded. In light of the high rate of questionnaire returns and the adequate representation of the research population, it can be recognized as a sufficient rate. Regression and correlation analyses were carried out for this aim utilizing the quantitative research approach and the SPSS Statistical Package Program. The survey method was used in the study to gather data. The study's findings led to an understanding that green distribution techniques significantly and favorably affect how businesses are regarded to operate.

Keywords: Green Marketing, Green Distribution, Perceived Business Performance

Yeşil Dağıtım Faaliyetlerinin Algılanan İşletme Performansı Üzerindeki Etkisinin Belirlenmesi: Kocaeli Lojistik İşletmeleri Uygulaması

ÖZ

Süreç	Doğal kaynakları koruma, enerji tasarrufu sağlama ve çevre bilinci günümüzde oldukça önem arz etmektedir. Tüketiciler, günümüzde daha az kirliliğe sebep olan, geri dönüşüm oranı yüksek ürünler tercih etmektedirler.			
Geliş: 28/04/2023 Kabul: 21/09/2023	Toplumsal farkındalığı benimseyen, sosyal sorumluluk bilincinde olan ve tüketicilerin beklentilerini karşılamaya çalışan işletmeler, faaliyetlerini yeşil pazarlama kapsamında gerçekleştirmektedir. Yakıt, ambalaj ve dağıtım güzergâhının minimum seviyeye indirilmesi yeşil dağıtım faaliyetleri gibi birçok faaliyet işletmelere kâr avantajı da sağlamaktadır. Lojistik işletmelerin, dağıtım güzergâhların da alternatif yollar belirlemesi, kullanılan			
Jel Kodları:M30, M31	ambalajların ters lojistik ile dönüşümünün sağlanması işletmelere performans verimliliği sağlamaktadır. Öte yandan günümüz ticaretinde performans ölçümleri ile işletmeler rekabet avantajı elde etmektedirler. Performans ölçümleri, tüketici memnuniyetini sağlama konusunda da işletmelere yol göstermektedir. Buradan hareketle bu çalışma ile yeşil dağıtım faaliyetlerinin işletme performansı üzerindeki etkisinin belirlenmesi amaçlanmıştır. Ayrıca yeşil dağıtım faaliyetleri ile algılanan işletme performansı arasında bir ilişki olup olmadığının belirlenmesi de hedeflenmiştir. Çalışmanın anakütlesinin belirlenmesi için Kocaeli ilinde lojistik sektöründe faaliyet gösteren işletmelerin listesi Kocaeli Ticaret Odası'ndan alınmıştır. Listede bu anlamda 102 firma bulunmaktadır. Bu işletmelerin üst düzey yöneticisi ile yüz yüze görüşülmüştür. Bu işletmelerin 86 üst düzey yöneticisi geri dönüş sağlamıştır. Anket geri dönüş oranı yüksek olması ve çalışma evrenini temsil etmesi			
Copyright	bakımından yeterli bir oran olarak kabul edilebilir. Bu amaçla nicel araştırma yöntemi kullanarak SPSS İstatistik Paket Programı ile regresyon ve korelasyon analizleri yapılmıştır. Çalışmada veriler anket yöntemi kullanılarak			
Contraction of the second seco	toplanmıştır. Çalışma sonucunda ise yeşil dağıtım uygulamalarının, algılanan işletme performansı üzerinde anlamlı ve olumlu bir etkisi olduğu anlaşılmıştır.			
Creative Commons Attribution 4.0 International License	Anahtar Kelimeler: Yeşil Pazarlama, Yeşil Dağıtım, Algılanan İşletme Performansı			
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Logistics En	How to Cite: Ellibeş, Ö. ve Akçadağ, M. (2023). Determining The Impact of Green Distribution Activities On Perceived Business Performance: Kocaeli Logistics Enterprises Application, Journal of Economics and Administrative Sciences, 24(4), 519-526. DOI: 10.37880/cumuiibf.1288970			

Introduction

Present-day firms and environmentally conscious consumers are encouraged to engage in green marketing activities by rising consumption, environmental pollution, and global warming (Akça & Akdoğan, 2023). While marketing operations are being conducted, environmental protection is viewed as the primary responsibility of businesses, and it is believed that using natural resources for a long time would increase and that doing so will safeguard human health (Topuz, 2016:2). Distribution, a component of green marketing initiatives, has a greater impact on organizations' environmental and sustainability initiatives than product, price, and promotion do (Candemir, 2021:180).

Globalization, the disappearance of borders, global information flow, and technological developments have made the logistics industry more important. Logistics businesses that want to continue their existence in competitive conditions have focused on processes that will provide a competitive advantage against rival companies (Dilek & incaz, 2021:31). The fact that consumers have become more conscious about environmental pollution, climate change, and natural resources has led logistics companies to be more environmentally friendly in their activities. "Green distribution" processes have become more common as logistics enterprises integrate their operational activities into their green marketing strategies (Yıldız, 2020:3).

Businesses improve "firm performance" by creating an ideal working environment with green marketing activities (Gedik, 2020:47). Firms determine consumer demands with performance measurements (Demirel, 2021:90). In this way, customer requests and expectations are of vital importance in shaping the strategic activities of logistics enterprises. Therefore, the green distribution activities of logistics enterprises are of key importance in terms of business performance. From this point of view, this study is aimed to determine the effect of green distribution activities of 86 logistics companies operating in Kocaeli on the perceived business performance. For this purpose, the quantitative research method was preferred. Regression and correlation analyzes were performed to determine the effect and relationship between the variables. Quantitative research method was preferred in order to objectify the phenomena by abstracting them from the processes and factors in their environment, and then transforming them into observable and measurable features.

Green Marketing Concept

The idea of green marketing, which began to gain popularity at the end of the 1970s, actively participates in the processes of product and service development, consumption, and post-consumption (Aslan & Çınar, 2015:169). Green marketing is a collection of services, products, and ideas that stand out with their environmental awareness. For this reason, the elements of the green marketing mix must be environmentally friendly and provide resource sustainability. Within the scope of green marketing activities, the elements of the marketing mix undergo a nature-friendly transformation. Environmental marketing mix elements; green products, green labels, green prices, and green distribution.

The idea of green marketing is similar to traditional marketing in general, but it is influenced by consumer attitudes toward the environment in terms of operation, secures the long-term use of natural resources, and benefits society (Candemir, 2021:162). Beyond all of these advantages, it is clear that green marketing helps firms. For instance, it is said that L'Oreal, a pioneer in the cosmetics sector, and Toyota, two leaders in the automotive sector, both saw a gain in revenue as a result of their efforts to promote products with zero carbon emissions (Nath and Siepong, 2022).

Green Logistic and Distribution

Logistics, which comes from logic in terms of word origin, is the implementation of activities such as planning the movement from production to consumption of products, goods, information, and services, mutually to both sides; order management, storage, transportation, customs, labeling, handling, packaging, to meet the wishes and needs of the buyers.

Logistics is becoming increasingly important today; in addition to transporting products, goods, or services from one place to another, it also creates an effective value in the marketing decisions of businesses. Responding quickly to the changing demands and needs of customers or consumers has become one of the first goals of logistics providers (Mucuk, 2012).

Meeting customer demands and needs, which are the common points of marketing and logistics in terms of businesses, is not only an important factor in maximizing profits but also in competition (Razzaque & Chang, 1998). This awareness enables businesses to focus on factors such as efficiency, customer satisfaction, loyalty, effectiveness, and competitiveness.

Businesses that want to meet customer demands and needs with social responsibility and environmental awareness carry out green logistics activities. It is possible to define green logistics as following green processes in the procurement of the raw materials required for a product to be produced, packaging, packaging, labeling, and distribution of the produced product to the desired location in a way that causes the least harm to the environment (Sipahi, Turgut & Özbaş, 2023:1109).

One of the elements of the successful operation of green distribution strategies is the continuous, correct, and healthy flow of information to enterprises by channels consisting of wholesalers, intermediaries, and retailers. Retailers are close to customers' wishes and have important details about customers. For example, the use of eco-friendly bags by retailers adds an environmentally friendly image to businesses.

- Green distribution activities processes are as follows:
- Apart from the use of energy and raw materials, it also covers issues such as environmental pollution and waste,
- The principle of using environmentally friendly products in packaging processes,
- It is the transportation of the product by vehicles equipped with technology that ensures the exhaust of the fuel in road transportation in a way that causes minimal damage to the environment.

The Concept Of Perceived Business Performance

To utilize resources effectively, improve performance, and guarantee customer happiness, businesses must make the appropriate judgments (Kücükkaptan, 2020:73). It requires information on supplier performance, the effectiveness of human resources, the caliber of goods and services, and market research in addition to financial and accounting measurements (Akarçay, 2020:110). Business performance plays an important role in sustainable competition for companies. It is possible to express business performance as all efforts made by companies to reach their goals (Kayapınar, 2016:84). Today, new features such as customer satisfaction, public responsibilities, value creation in production, efficiency, product development, and market share have begun to be used in measuring business performance, along with financial indicators. These attributes are also referred to as non-financial performance indicators. It is possible to evaluate qualities such as creating value in production, public responsibilities, and customer satisfaction within the scope of green marketing (Neely, Gregory & Platts, 2005: 1233-1234). In this sense, in this study, perceived business performance was preferred to determine many qualitative measurements such as customer satisfaction, efficiency, market attractiveness, service satisfaction (Boy-Akdağ & Tayfur-Ekmekçi, 2023) in measuring the performance of the relevant businesses.

When we look at the general research, the undetected business performance variables are stated as follows (Capon et al., 1990:1144);

- Customer happiness,
- Customer loyalty,
- employee satisfaction,
- social benefit
- Productivity,
- Organizational stability.

In his research covering the performance measurement literature, Andriessens expressed the reasons for measuring non-financial resources as follows (Andriessens 2004, Cited by Ittner, 2008:262).

- The focus of business management on the measurement of non-financial assets,
- The necessity of auditing the studies,
- Non-financial assets management process becomes mandatory,

• It is the acceptance and management of the business and its activities as a whole.

Literature Review

In the literature, there are many studies on green distribution and business performance, which are included in green marketing activities. Aslan (2007) stated in his study the importance of environmental protection policies of green distribution practices in logistics processes. Türk and Gök (2010), on the other hand, mentioned that working with companies that adopt an "environmental understanding" in distribution channels will provide more benefits for businesses. In another study, he explained that the evaluation of business performance alone is insufficient. Bayyurt (2011), also emphasized the importance that society's view of business directly affects firm performance. In one of the studies on the subject, Konuk (2011) stated that enterprises that show efficiency in the distribution processes gain higher levels of customers and that the performance of the firm increases with the increase in customer loyalty. Erbaşlar (2012) in his study, conveyed the importance of providing a continuous and regular flow of information to businesses for green distribution activities to be successful. In another study, Yangınlar and Sarı (2014) stated that there is a direct relationship between environmental processes and business performance. Tayfun and Öçlü (2015) explained the necessity of encouraging businesses to green distribution practices for a sustainable environment and economy. He also stated in the study that green distribution activities are a very sensitive process. In the same study, he stated that green distribution activities should be integrated with other activities.

Reviewing the research on green supply chains and company performance is the goal of the study by Chin, et al. (2015). It also highlights the significance of environmental cooperation and sustainability.

Another study on the topic looked at all aspects of green marketing. The study's objective is to ascertain how green marketing affects the measurement of corporate performance. According to the results of the study done for this purpose, green people, green processes, green physical evidence, and green products all have a positive impact on communication performance (Eneizan et al., 2016:1–14).

Determine the mediating role of green in the measurement of supply chain, communication, and firm performance is the goal of the study on green supply chain, green communication, and firm performance. The study's findings revealed that green practices have a substantial impact on the performance of catering, procurement, and communication (Candrasa, et al., 2020).

Yıldız and Göktepe (2020) stated that the environmental activities of enterprises will contribute more to their performance. In research on environmental marketing activities and business performance (Porter & Linde, 1995:145; Prakash, 2002; Karabulut, 2003; Claver et al., 2007; Garzella & Fiorentino, 2014:84; Wu & Wu, 2014; Yangınlar &

Sarı, 2014; Nar and Gök, 2016; Karakuş and Erdirençelebi, 2018) are understood to focus on ecological, market, perceived and imperceptible performances. **Research Method**

The strategy they will implement for logistics businesses that want to improve their business performance is important in being sustainable. With green marketing activities, businesses both gain an advantage in the target market and meet consumer demands. Determining the target strategy with business performance, in which processes, how to follow, etc. questions are sought to be answered. From this point of view, this study was conducted to determine the effect of green distribution activities on perceived business performance. The research questions are;

Do provincial distribution activities affect perceived business performance?

Is there a relationship between green distribution and perceived business performance? It is in the form.

The hypotheses of the research were formed in line with the literature review and are listed below.

H₁: In logistics enterprises, green distribution activities have a significant and positive effect on perceived business performance.

H₂: There is a significant relationship between green distribution activities and perceived business performance in logistics businesses.

This study was conducted to determine the effect of green distribution activities and perceived business performance. It is also aimed to determine whether there is a relationship between green distribution activities and perceived business performance. To determine the population of the study, the list of enterprises operating in the logistics sector in Kocaeli was obtained from the Kocaeli Chamber of Commerce. In this sense, there are 102 companies on the list. All of these companies were interviewed face-to-face and a complete census sampling was carried out. The senior managers of each business were interviewed and feedback was received from 86 of them. In this sense, the sufficient sample size was calculated according to Yamane's (1997) formula and was found to be 81.27. In another study, it was stated that the sample size should be at least 80 according to the population (Sekaran, 1992: 253). In this sense, it is understood that the study has a sufficient sample size. It can be accepted as a sufficient rate in terms of the high return rate of the questionnaire and the representation of the study population. The data obtained in the quantitative research were analyzed using the SPSS 21 program. The questionnaire method was used as a data collection tool in the research. To answer the questionnaires, middle, senior, and administrative personnel of companies operating in the logistics sector were reached. All of the questionnaires were conducted face-to-face with the participants to get answers. The questionnaire used in the research consists of three parts. In the first part, the scale of green distribution practices was used. While the scale created by Mwaura & Letting

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(2016), whose validity and reliability is accepted for the green distribution practices scale, was used in the study, the scale created by Ahmed et al., whose validity and reliability is also accepted, was used for the perceived business performance. The scale proven by was preferred. The scale is taken from Mwaura & Letting's "Green Distribution Practices" study (Mwaura & Letting 2016). The scale consists of a 5-point Likert scale. In the survey, 1 means "I do not agree at all" and 5 means "I totally agree". The scale consists of 14 statements. In the second part, the scale of perceived business performance was used. Scale Ahmed et al. (1996) study. The scale consists of 4 statements. The scale consists of a 5-point Likert scale. The last part of the questionnaire consists of questions to determine the demographic characteristics of business managers.

After the survey data were transferred to the SPPS Program, the kurtosis-skewness method was applied. In the related literature (Tabachnick & Fidell, 2013), if the kurtosis-skewness of the normal distribution values is between -1.5 +1.5, it is accepted that the data show a normal distribution. Accordingly, the skewness and kurtosis values of the variables were 0,390 and -0,649 on the green distribution practices scale, respectively; for the scale of perceived business performance, it is -0,860 and 0,388. Since these values are in the range of +1 to -1, it was determined that the data showed a normal distribution. The scales of green distribution activities and perceived business performance used in the survey were subjected to the Cronbach Alpha Test analysis to determine their reliability. The reliability of the scale of green distribution practices, Cronbach's Alpha value, high reliability with 0,844 reliability of perceived business performance scale Cronbach's Alpha value is 0,825 and it was found to be of high reliability (Yıldız & Uzunsakal 2018:19).

Findings

In this part of the study, the results of the analysis made to test the tables and hypotheses containing information about the demographic characteristics of the logistics enterprises and their managers in Kocaeli are included.

Identifiable Information of Participants

The application part of the research was carried out in light of the data obtained from the managers of the logistics enterprises in Kocaeli. The information of the participant managers is tabulated.

64% of the participants are men and 36% are women. When the educational status of the individuals participating in the survey is examined, it is seen that the most 43% are undergraduate graduates. In the position, which is another demographic variable, middle-level managers work with a maximum of 67.4%. Considering the years of service of the individuals who participated in the survey, those who worked between 1 and 5 years are in first place with 53.5%. Considering the age of the individuals participating in the survey, which is the last

demographic feature, it is seen that the age range is between 20 and 29 with 43%.

Table 1. Descriptive inf	formation about	the participants

Table 11 Descriptive mjormation abo					
Position	F	%	Year of Service	F	%
Intermediate	58	67.4	15 years	46	53.5
Top level	13	15.1	6 - 10 years	29	33.7
Administrative Staff	15	17.5	11 - 15 years	9	10.5
Total	86	100.0	16 years and +	2	2.3
Gender	F	%	Total	86	100.0
Woman	31	36.0	Age	F	%
Male	55	64.0	20 - 29	37	43.0
Total	86	100.0	30 - 39	36	41.9
Education	F	%	40 - 49	10	11.6
Primary school	1	1,2	50 and +	3	3,5
High school	14	16.3	Total	86	100.0
Associate Degree	23	26.7			
Degree	37	43.0			
Graduate	11	12.8			
Total	86	100.0			

Table 2. Correlation Analysis

		GDA	PBP
	Pearson Correlation	1	, 485 ^{**}
GDA*	Sig. (2-tailed)		,000
	Ν	86	86
	Pearson Correlation	,485**	1
PBP**	Sig. (2-tailed)	,000	
	Ν	86	86
* Green Distribution Activities			
** Perceived Business Performance			
*** Correlation is significant at t	he 0.01 level (2-tailed).		

Table 3. Regression Analysis

			Coefficients ^a			
		В	Std. Error	Beta	t	Sig.
1	(Constant)	2,136	,440		4,850	,000
	GDA*	,559	,110	,485	5,089	,000
*Green Distribution Activities **Dependent Variable: Perceived Business Performance						

Testing Hypotheses

In the study, correlation analysis was performed to determine the direction and severity of the relationship between variables (green distribution activities, and business performance). Regression analysis was also conducted to measure the effect of green distribution activities, which is the independent variable, on the perceived business performance, which is the dependent variable. Analysis results are given below.

According to the correlation analysis performed to determine the direction and severity of the relationship between green distribution and perceived business performance, a moderate positive correlation was found between green distribution activities and business performance variables (r=,485; p<0.001). Therefore, it is understood that the H₁ Hypothesis is supported.

Regression analysis was conducted to determine whether green distribution practices affect perceived business performance. According to the analysis result, since the value is p<0.001, it is understood that green distribution practices have a significant and positive effect on perceived business performance. Therefore, it was concluded that the H₂ hypothesis was supported.

Discussion And Conclusion

This study is aimed to determine the effect of green distribution activities of logistics enterprises on business performance. For the application part of the study, it is understood that 64.0% of the participants were male and 43% had a bachelor's degree. In addition, 67.4% of the employees participating in the survey are mid-level managers. In the years of service, 53.5%, at most 1-5 years, and finally, 43% are in the age range of 20-29.

As a result of this study, in which the effect of green distribution activities on the perceived business performance was investigated, it was found that the green distribution activities of the logistics enterprises in Kocaeli province had a significant and positive effect on the perceived business performance. It is also understood that the dependent variable is perceived business performance and the independent variable green distribution practices are in a positive relationship. From this point of view, it is possible to state that green distribution practices affect business performance in logistics enterprises in Kocaeli. When the limitations of the study are examined, the data of the study were collected between 21 December 2021 and 16 June 2022. Another limitation of the study is that the companies that applied consist of logistics enterprises operating in Kocaeli province. Although there is no study in the literature to determine whether green distribution has an effect on perceived business performance, it does not make a comparison possible, but it supports the studies of Özcan and Özgül (2016) and Tayfun and Öçlü (2015) as green marketing activities are related to various performance indicators. With green marketing activities, businesses gain an advantage in the target market and meet consumer demands. Determining the target strategy with business performance, in which processes, how to follow, etc. questions are sought to be answered.

The study draws attention to the fact that the green distribution activities of logistics enterprises are very important in the process of business performance, which is becoming increasingly important. The study aimed to contribute to the studies to be carried out in the following processes by making determinations about green distribution activities, the concept of green marketing, and the perceived business performance approach.

Extended Abstract

Background & Purpose: The importance of the logistics sector has increased as a result of technology advancements, globalization, the erasure of national boundaries, and global information flow. Businesses in the logistics industry that wish to remain viable in a competitive environment have concentrated on procedures that will give them an advantage over competitors. Logistics firms are becoming more ecologically friendly in their operations as a result of customers' increased awareness of environmental degradation, climate change, and the depletion of natural resources. As logistics companies include their operational operations into their green marketing plans, "green distribution" techniques have grown increasingly widespread. Businesses increase "firm performance" by fostering a perfect workplace through green marketing initiatives (Gedik 2020:47).

Performance metrics are used by businesses to identify customer wants. In order to shape the strategic operations of logistics firms, client demands and expectations are crucial. In order to maximize commercial success, logistics companies must prioritize their green distribution efforts. Therefore, the green distribution activities of logistics enterprises are of vital importance in terms of business performance. From this perspective, the goal of this study is to determine the effect of green distribution practices of Kocaeli-based logistics companies on perceived business performance.

Research Method: This study was carried out to ascertain how green distribution practices affected how well businesses were regarded to be performing. The purpose is also to ascertain whether there is a meaningful association between perceived company performance factors and green distribution initiatives. The survey approach was used in the study to gather data. By employing a full count, the sample technique was applied to 102 logistics companies that were registered with the Kocaeli Chamber of Commerce. Data were collected by asking 86 of 102 businesses for input. There are three sections to the questionnaire.

The scale of green distribution procedures was applied in the first section. The scale was drawn from the "Green Distribution Practices" study by Mwaura andLetting (Mwaura & Letting 2016). The scale consists of a 5-point Likert scale. In the survey, 1 means "I do not agree at all" and 5 means "I totally agree". The scale consists of 14 statements. The scale of perceived company performance was applied in the second section. Study by Ahmed et al., (1996) scaled. Four statements make up the scale. This scale was constructed using a 5-point Likert scale. The questionnaire's last section comprises of inquiries to ascertain the demographics of company managers. After the survey data were transferred to the SPPS Program, the kurtosis-skewness method was applied. In the related literature (Tabachnick & Fidell, 2013), if the kurtosisskewness of the normal distribution values is between -1.5 +1.5, it is accepted that the data show a normal distribution. Accordingly, the skewness and kurtosis values of the variables were 0,390 and -0,649 on the green distribution practices scale, respectively; for the scale of perceived business performance, it is -0,860 and 0,388. Since these values are in the range of +1 to -1, it was determined that the data showed a normal distribution. The quantitative research approach was preferred in this direction. One of the quantitative research techniques used was regression and correlation analysis to ascertain the link and effect between the variables. In order to objectify the variables by removing them from the processes and elements in their environment, and then to transform them into visible and measurable features, quantitative research methods were used.

The Cronbach Alpha Test analysis was conducted to assess the reliability of the scales for the green distribution activities and perceived company performance employed in the survey. The reliability of the perceived business performance scale, with a Cronbach's Alpha value of 0,825 and high dependability, and the reliability of the green distribution practices scale, with a Cronbach's Alpha value of 0,844 were both found to be very reliable. Correlation analysis was used in the study to ascertain the nature and strength of the link between the variables (green distribution activities, perceived business performance). The impact of green distribution operations on perceived company performance was measured using regression analysis.

Conclusion: Regression analysis was used to determine the relationship between the independent variablegreen distribution activities-and the dependent variable-perceived business performance. The association between the variables was ascertained by correlation analysis. The correlation research revealed a strong link (r=,485, p<0,01) between green distribution activities and company performance factors. It demonstrates that 23% of the relationship between green distribution efforts and perceived business performance can be statistically explained (R2). Additionally, it was determined that the green distribution operations had an impact on the perceived business performance because p<0.01. As a result, it can be observed that the study's H_1 and H₂ hypotheses are validated. In the study's application phase, administrative, medium, and senior managers at logistics companies in Kocaeli were found to be 64.0% male, 43% have bachelor's degrees, 67.4% are middlelevel managers, and 43% are between the ages of 20 and 29. It is acknowledged that they fall within the range of services, with 53.5% of their service being between one and five years. According to the findings of this study, which looked at how green distribution practices affect how customers view a company's performance, the logistics operations in the province of Kocaeli are significantly and favorably impacted by their green distribution practices. It can be observed that the independent variable green distribution practices and the dependent variable perceived company performance have a positive relationship. From this vantage point, it is conceivable to assert that eco-friendly distribution methods influence Kocaeli province's commercial performance. The significance of environmentally friendly distribution methods is also recognized.

When the limitations of the study are examined, the data of the study were collected between 21 December 2021 and 16 June 2022. Within the working constraints, there is the formation of logistics business units that continue their activities in Kocaeli province. It is seen that the research supports the studies of Özcan and Özgül (2016), who were examined during the literature review. The study draws attention to the fact that the logistics companies' green distribution operations play a significant role in the increasingly crucial process of company performance. By deciding on green distribution practices, the notion of green marketing, and the perceived business performance strategy, it aims to contribute to the work that has to be done in the processes that follow.

References

- Ahmed, N.U., Montagno, R.V. & Firenze, R.J. (1996). Operations strategy and organizational performance: an empirical stud. *International Journal of Operations & Production Management*, 16(5), 41-53.
- Akarçay N. (2020). Kurumsal kaynak planlaması uygulamalarinin İşletmelerin rekabet gücüne ve performansina Etkileri:

Marmara Bölgesinde faaliyet gösteren Liman işletmelerinde bir araştırma. İstanbul Gelişim Üniversitesi Sosyal Bilimler Enstitüsü, Doktora Tezi, İstanbul.

- Aslan, F. (2007). Yeşil pazarlama faaliyetleri çerçevesinde Kafkas öğrencilerinin çevreye duyarlı ürünleri kullanma eğilimlerini belirlemeye yönelik bir araştırma. Kafkas Üniversitesi, Sosyal Bilimler Enstitüsü, Yüksek Lisans Tezi, Kars.
- Aslan, F. ve Çınar, R. (2015). Yeşil pazarlama faaliyetleri çerçevesinde kafkas üniversitesi öğrencilerinin çevreye duyarlı ürünleri kullanma eğilimlerini belirlemeye yönelik bir araştırma. *KAÜ İİBF Dergisi*, 6 (9).
- Bayyurt, N. (2011). İşletmelerde performans değerlendirmenin önemi ve performans göstergeleri arasındaki ilişkiler. *Journal Of Social Policy Conferences*, 0 (53), 577-592.
- Boy-Akdağ, L. & Ö. Tayfur-Ekmekci (2023). İş stratejileri ve algılanan örgütsel performans arasındaki ilişkiler: büyük ölçekli işletmeler üzerine bir araştırma. *Sosyoekonomi*, 31(57), 299-329.
- Candemir, A.(2021). *Yeşil Pazarlama*, Nobel Bilimsel Eserler Yayınevi, Sürdürülebilirlik Ve Değer Yaratan Yeşil Uygulamalar Kitabı, 8. Bölüm, Ankara.
- Candrasa, L., Cen, C. C., Cahyadi, W., Cahyadi, L., & Pratama, I. (2020). Green supply chain, green communication and firm performance: empirical evidence from thailand. *Systematic Reviews in Pharmacy*, 11(12).
- Capon, N., Farley, J. U., & Hoenig, S. (1990). Determinants of financial performance: a meta analysis. *Management Science*. 36(10), 1143-1159.
- Chin, T. A., Tat, H.H., & Sulaiman, Z. (2015). Green supply chain management, environmental collaboration and sustainability performance. *Procedia Cirp*, (26) 695-699.
- Claver, E., Lo'pez, M.D., Molina, J.F., & Tari', J.J. (2007). Environmental management and firm performance: a case study. *Journal of Environmental Management* (84), 606–619.
- Delice-Akca, T. ve Akdoğan, M. Ş. (2023). Gıda işletmelerinin yeşil lojistik uygulamaları ve lojistik performanslarının demografik faktörlere göre incelenmesi. *İktisadi İdari ve Siyasal Araştırmalar Dergisi*, 8(21), 491-512. https://doi.org/10.25204 /iktisad.1144246
- Demirel, R. (2021). Tedarik zinciri performans göstergelerinin bilgi teknolojileri ile uygulaması, Yüksek Lisans Tezi, Karamanoğlu Mehmetbey Üniversitesi Sosyal Bilimler Enstitüsü, Uluslararası Ticaret ve Lojistik Ana Bilim Dalı, Karaman.
- Dilek, Ş. & İncaz, S. (2021). Küreselleşme sürecinde teknolojik dönüşümün lojistik sektörüne etkileri, *Beykoz Akademi Dergisi*, 9(2), 30-49.
- Eneizan, B. M., Abd-Wahab, K., & Obaid, T.F. (2016). Effects of green marketing strategy on the financial and non-financial performance of firms: A conceptual paper. *Oman Chapter of Arabian Journal of Business and Management Review*, 34(3796), 1-14.
- Erbaşlar, G. (2012). Yeşil Pazarlama. *Mesleki Bilimler Dergisi,* 94-101.
- Garzella, S., & Fiorentino, R. (2014). An integrated framework to support the process of green management adoption. *Business Process Management Journal*, 20(1), 68-89.
- Gedik, Y. (2020). Yeşil pazarlama stratejileri ve işletmelerin amaçlarına etkisi. *International Anatolia Academic Online Journal, 6(2), 46-65.*
- Ittner, C.D. (2008). Does measuring intangibles for management purposes improve performance? a review of the evidence. *Accounting and Business Research*, 38(3).
- Karabulut, E. (2003). İşletmelerde Çevre Bilinci ve Yeşil Yönetim Uygulamalarının İşletme Başarısına Katkısını İncelemeye

Yönelik Bir Araştırma, Doktora Tezi, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

- Karakuş, G., & Erdirençelebi, M., (2018). İşletmelerin yeşil yönetim algılarının işletme performansı üzerindeki etkisini ölçmeye yönelik bir araştırma. *İşletme Araştırmaları Dergisi*, 681-704.
- Kayapınar, Ö. (2016). Lojistik hizmet kalitesi ile firma performansı arasındaki ilişkide lojistik performansı ve teknoloji düzeyinin rolü, Yüksek Lisans Tezi, Trakya Üniversitesi, Sosyal Bilimler Enstitüsü, Edirne.
- Konuk, B. (2011). Dağıtım lojistiği performansının firma performansına etkisi, Doktora Tezi, İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü İşletme Mühendisliği Ana Bilim Dalı, İstanbul.
- Küçükkaptan, M. (2020). Kobilerde inovasyon algısının işletme performansına etkisi, Ümraniye imes osb örneği. İstanbul Gelişim Üniversitesi Lisansüstü Eğitim Enstitüsü, İşletme Anabilim Dalı Doktora Tezi, İstanbul.
- Mucuk, İ. (2012). *Pazarlama İlkeleri*. (19.basım). İstanbul: Türkmen Kitapevi.
- Mwaura A., & Letting, N. (2016). Green distribution practics and competitiveness of food manufacturing firms in Kenya, *International Journal of Economics, Commerce and Management*, 4(3), 189-207.
- Nar, Y., & Gök, Ş. (2016). Dinamik çevre etkisinde pazarlama stratejileri ve pazar performansı analizi: bilişim sektörü değerlendirmesi. *BUJSS*, *9*(1), 134-147.
- Nath, P., Siepong, A. (2022). Green marketing capability: a configuration approach towards sustainable development. *Journal of Cleaner Production*, 354, 1-12, 131727.
- Neely, A., Gregory, M. & Platts, K. (2005). Performance measurement system design a literature review and research agenda, *International Journal of Operations & Production Management*, 25(12), pp. 1228-1263.
- Özcan, H. & Özgül, B. (2019). Yeşil pazarlama ve tüketicilerin yeşil ürün tercihlerini etkileyen faktörler. *Türkiye Mesleki ve* Sosyal Bilimler Dergisi, (1), 1-18.
- Porter, M. E., & Van Der Linde, C. (1995). Green and competitive: ending the stalemate. *Harvard Business Review*, September– October, 120–134.
- Prakash, A. (2002). Green marketing, public policy and managerial strategies. *Business Strategy and the Environment*, 11(5), 285–297.
- Razzaque, M.A., & Chang, C.S. (1998). Outsourcing of logistics functions: a literature survey. *International Journal of*

Physical Distribution & Logistics Management, 28(2), 89–107.

Sekaran, U., (1992), *Research Methods for Business.*, Canada: John Wiley

&Sons, Inc

- Sipahi, Ş., Turgut, M. & Özbaş, H. (2023). Yeşil lojistik: uluslararası projelerin ve sektörel uygulamaların incelenmesi. International Journal of Disciplines Economics & Administrative Sciences Studies, 9(49), pp: 1107-1121.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.), Boston: Allyn and Bacon.
- Tayfun, N. & Öçlü, B. (2015). Yeşil pazarlama uygulamasının tüketiciler açısından algılanmasının nöropazarlama tekniği ile araştırılması. *Uludağ Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 2.
- Topuz, S. (2016). Yeşil pazarlama ve üretici işletmelerin yeşil pazarlama faaliyetlerine ilişkin bir araştırma, Yüksek Lisans Tezi, Beykent Üniversitesi Sosyal Bilimler Enstitüsü İşletme Yönetimi Anabilim Dalı Pazarlama Bilim Dalı, İstanbul.
- Türk, M. & Gök, A. (2010). Yeşil pazarlama anlayışı açısından üretici işletmelerin sosyal sorumluluğu. *Elektronik Sosyal Bilimler Dergisi*, 9(32), 199-220.
- Wu, S.I. & Chen, Y. (2014). The Impact of Green Marketing and Perceived Innovation on Purchase Intention for Green Products. *International Journal of Marketing Studies*, 6(5), 81-100.
- Yamane T. (2001). Çevirenler: Alptekin E, Temel Örnekleme Teknikleri, Literatür Yayınları, İstanbul.
- Yangınlar, G. & Sarı, K. (2014). Yeşil lojistik uygulamaları ve işletme performansı üzerine bir literatür araştırması, III. Uluslararası Lojistik ve Tedarik Zinciri Konferansı. Trabzon.
- Yıldız, B. (2020). Yeşil tedarik zinciri yönetimi uygulamalarının performans üzerindeki etkisinin yapısal eşitlik modeli ile analizi. Osmaniye Korkut Ata Üniversitesi Osmaniye Korkut Ata University İktisadi ve İdari Bilimler Fakültesi Dergisi, 4(1), ss. 1-22.
- Yıldız, D. & Uzunsakal, E. (2018). Alan araştırmalarında güvenilirlik testlerinin karşılaştırılması ve tarımsal veriler üzerine bir uygulama, *Uygulamalı Sosyal Bilimler Dergisi*, 1, pp.14-28.
- Yıldız, R. & Göktepe, A.O. (2020). Müşteriler açısından firmaların yeşil tedarik zinciri yönetimi uygulamalarına yönelik bir saha araştırması. *International Social Mentality and Researcher Thinkers Journal*, 6(38), 2157-2167.



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Dream of European Army: is it a Feasible Objective or Not?

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Research Article	ABSTRACT
	The European Union's (EU) defense initiatives have changed over time, reflecting both the pursuit of security
History	and defense goals and the shifting dynamics of European integration. To improve defense cooperation and
	create a common defense strategy for the EU, several initiatives have been made. The EU's Common Security
Received: 28/07/2023	and Defense Policy (CSDP), which strives to strengthen its capacity to handle security concerns and preserve
Accepted: 13/09/2023	stability, has a significant influence on defense-related operations. We have witnessed new security and military
	efforts from the EU in the first two decades of the 2000s, such as the European Security Strategy, EU's Global
	Strategy, and Security Compass. The announcement of the creation of the European Army was heavily made on
	November 13, 2017. Europe should be able to act independently in areas of defense and security rather than
	merely relying on the US or NATO. Because of these kinds of reservations, desires to pursue more advanced
	capabilities on their own have been raised.
	There has been a lot of debate and analysis around the reasons for and against the formation of a European
	Army. Why is the idea of a European Army so heavily investigated? Is building such an army a realistic goal or
	not? What are the benefits, drawbacks, and challenges to achieving it? Who is in favor of and against building
	an army in Europe? These are the primary questions that we attempt to address in this article.
Copyright	If the European Army becomes a reality, it is predicted that Europe will finally be able to effectively defend itself
	with a unified force without outside support. Here the most important thing is strong political will and a common
	point of view for the creation of a European Army. If the most significant aim is to defend different European
This work is licensed under	interests, a crucial question arises: What are the interests of Europe, and who defines them?
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Keywords: European Union, NATO, CSDP, ESS, European Army.

Avrupa Ordusu Hayali: Gerçekleşmesi Mümkün Bir Hedef Mi?

Süreç Geliş: 28/07/2023 Kabul: 13/09/2023 Copyright €€€€€ This work is licensed under Creative Commons Attribution 4.0 International License	Öz Zaman içinde Avrupa Birliği (AB) savunma alanında pek çok girişim ortaya koymuştur. Bu doğrultuda hem güvenlik ve savunma hedeflerinin peşinden gitmiş, hem de Avrupa entegrasyonunun değişen dinamiklerine uyum sağlamaya çalışmıştır. AB'nin Ortak Güvenlik ve Savunma Politikası (OGSP), güvenlik endişeleriyle başa çıkma kapasitesini güçlendirmeyi ve istikrarı korumayı hedefleyen bir politika olarak savunma ile ilgili operasyonlarda önemli bir etkiye sahip olmuştur. Ancak 2000'li yılların başından bugüne değin AB'nin Güvenlik Stratejisi, Küresel Stratejisi ve Güvenlik Pusulası gibi AB'nin güvenlik bağlamında yeni bazı inisiyatifleri söz konusu olmuştur. 2017 yılı itibarı ile bir Avrupa ordusu kurma düşüncesi ve arzusu yüksek sesle dile getirilmeye başlanmıştır. Temel motivasyon Avrupa'nın, sadece ABD veya NATO'ya güvenmek yerine savunma ve güvenlik alanlarında bağımsız hareket edebilme yeteneğine sahip olmasıydı. Bu tür endişelerin itici gücüyle artık Avrupa'nın savunma ve güvenlik bağlamında kendi başlarına daha ileri yeteneklere sahip olma isteğini artırdığını söyleyebiliriz. Bir "Avrupa ordusu" kurulması ile ilgili olarak birçok tartışma yaşanmaktadır. Avrupa ordusu fikri neden bu kadar yoğun bir şekilde araştırılmaktadır? Böyle bir ordunun oluşturulması gerçekçi bir hedef midir yoksa değil midir? Bunun gerçekleştirilmesinin avantaj ve dezavantajları nelerdir? Bir Avrupa ordusu kurma fikrini kimler neden desteklemektedirler? Tüm bu sorular makalemizde ele almaya çalışacağımız konuları ortaya koymaktadır. Eğer Avrupa Ordusu hayali gerçeğe dönüşürse, beklenti Avrupa'nın sonunda kendisini dışarıdan desteğe ihtiyaç duymadan etkili bir şekilde savunabileceği yönünde. Burada gerekli olan en önemli şey güçlü bir siyasi irade ve bir Avrupa Ordusu'nun yaratılması bağlamında tüm üye devletlerin ortak bir bakış açısına sahip olmasıdır. Eğer en önemli amaç Avrupa'nın çıkarlarını savunmaksa, sorulması gereken soru Avrupa'nın çıkarları nelerdir ve bunları kim tanımlamaktadır?
	Anahtar Kelimeler: Avrupa Birliği, NATO, AGSP, AGS, Avrupa Ordusu
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Introduction

The EU has focused on several issues, including the development of the European defense industry, the marketization of the sector, and defense industrial policy. The Common Security and Defense Policy (CSDP), which aims to improve the EU's capabilities to address security issues and maintain stability, has a substantial impact on defense-related operations. Additionally, the EU has emphasized the significance of developing a European Army and gaining strategic autonomy. In recent years, there has been an increase in recalls for the creation a European Army. In the twenty-first century, there are more threats than there were, thus the EU cannot rely entirely on the US for security. Even while it could now be judged necessary, EU authorities are still uncertain of how to put one up and under which conditions it would work (Avezou, 2021).

In the first two decades of 2000s, we witnessed new security and defense initiatives by the EU such as the European Security Strategy and EU's Global Strategy but 2013 was the turning point because the US deployed its new nuclear weapons in Europe. On 13 November 2017, the establishment of the European Army was announced. 23 Ministers of Defense and Foreign Affairs of the EU met in Brussels on 13 November and signed a Permanent Structured Cooperation agreement (PESCO). The aim of the agreement is to develop defense power, cooperation, and rapid action capability among member states. Signing this agreement can be accepted as a historical moment and is a concrete expression of the EU's revolt against the Atlantic. PESCO participants will inform the defense partnership EDA (European Defense Agency) of their prospects. The command center is the most crucial component of all processes. Regarding NATO, the offensive alliance of the Atlantic, this center will make sure that Europe controls its own destiny. The epicenter of the "common conflicts of Europe" will be there. The US is so undeniably losing its most crucial Atlantic pillar for global dominance, and its isolation grows.

The arguments in favor of and against the creation of a European Army have received extensive discussion and analysis. When an action is perceived to occur in the distant future, considerations in favor of it tend to become more salient, whereas when it is perceived to occur soon, considerations in opposition to it tend to become more noticeable. In addition, discussions about national identity and the usefulness of national frames of reference have been embedded within broader discussions about a European Army. In terms of military integration, as well as а response to geopolitical and technological developments, the idea of a European Army has also been discussed. The discussions have also touched on historical issues, such as the standing army discussions and the incentives brought about by various institutional configurations.

This introduction lays the groundwork for a thorough examination of the arguments for and against the formation of a European Army, considering elements like historical context, national identity, military integration, and temporal considerations. Understanding the history and complexity of the debates can be improved by looking at these aspects. In this article, firstly we will try to examine the historical background of the EU's defense initiatives. Secondly, we aim to evaluate current debates, about the European Army. While doing this also we will try to make some explanations about the "pros" and "cons" concerning the desire to create a European Army. Moreover, France's and Germany's motivations for the European Army and the US's point of view on the subject will be evaluated.

Historical Background of the EU's Security and Defense Initiatives

European military cooperation as a concept was originally proposed in 1948. The European Coal and Steel Community (ECSC) helped the continent's economic cooperation in advance, but it was more difficult for political collaboration to take shape. Aside from that, the Korean War occurred, and the US began to push the French to consider controlling the rearmament of Germany to potentially assist the shared European defense' in case it was necessary. The phrase "Pleven Plan" was used to describe this plan. The French prime minister's Pleven Plan, which was proposed in October 1950, called for a single European Army so the latest demands for a European Army and a common defense budget made by Emmanuel Macron are nothing new. A plan for the European Defense Community (EDC) was first put forth in the 1950s, when the Cold War was probably at its top level. It was proposed by the French Prime Minister Pleven and called for the resurrected fortydivision force to take the place of the armies of France, the Federal Republic of Germany, Italy, and the Benelux nations (Lak, 2018:140).

After observing the achievements of the ECSC, Jean Claude Monnet, the father of the concept, realized that a European Army might be the most expedient means of achieving a political and deeper integration amongst the European countries. In response to American demands on Germany's rearmament and joining NATO in 1950, French Prime Minister Renè Pleven proposed the idea of creating a pan-European defense architecture under the European Defense Community (EDC) (Telesca&Caliva, 2018: 2). The earliest and most successful attempt to start militarypolitical unification was the development and signing of the European Defense Community Treaty (EDC) (Yakoviyk et.al. 2020:227). Essentially, the EDC was created with two objectives in mind: first, to protect Western Europe from the USSR which was seen as a threat, and second, to incorporate West Germany into the European defense community without allowing it to have its own army. These two objectives, together with Robert Schuman's suggestion to supranationally pool European steel and coal, were both equally innovative. Since the late 1940s, the re-armament of West Germany has been a contentious and divisive issue. West Germany was not allowed to join NATO, and France supported the Pleven Plan. Despite being ratified by the French parliament in August 1954, the EDC treaty was never put into effect after being signed on May 27, 1952 (Lak, 2018:140). The United States (US), which regarded EDC as a vehicle for reunifying West Germany, supported this program (Yakoviyk et.al. 2020:227). The US, which at the time also had a significant role in NATO, was to be excluded from the EDC along with West Germany, France, Italy, and Benelux. The idea was to give France a starring role in the EDC. A pan-European supranational military with national components "at the level of the smallest conceivable unit" and under the command of a European Minister of Defense was the vision of the EDC (Telesca & Caliva, 2018: 2).

In an ironic turn of events, the French Parliament's failure to ratify the EDC prevented it from going into effect. Elite French political figures started to worry that the EDC may endanger the country's sovereignty because of the leadership transition in French national politics. The end of the Korean War and the death of Joseph Stalin had a significant and a negative influence on the previous push for the construction of an army in Europe since it was believed that the Soviet danger was no longer as acute as it was. As a result, the plan's failure was foreshadowed by the French National Assembly's reluctance to endorse it in 1954 (Telesca & Caliva, 2018: 2). To be fair, it should be noted that even if the EDC was approved, the European Army's actual independence would be negligible because it would have to enlist in NATO and submit to The Supreme Allied Commander Europe.

The German guestion continued to be discussed after the EDC's failure. Several decisions were made at a meeting of the Nine Powers (France, Italy, Luxembourg, the Netherlands, Belgium, the Federal Republic of Germany, the United Kingdom, Canada, and the United States), which was held in London from September 28 to October 3, 1954. These included putting an end to the occupation rule in the Federal Republic of Germany and regaining the nation's sovereignty, keeping controls on German rearmament by altering the 1948 Brussels Treaty, Italy's adhesion to the modified Brussels Treaty, and the Federal Republic of Germany's membership in NATO. In addition to assuring France about German rearmament, the United Kingdom's promise to keep troops on the European continent also prevented the evacuation of US forces. Then, in May 1955, the Treaty of Paris established that West Germany would in fact join the Western European Union (WEU) and NATO, which automatically resulted in the nation being rear (Lak, 2018:140; www.cvce.eu). The WEU member states, along with the US and Canada as members of NATO, made up the Western Bloc during the Cold War. Establishment of the WEU cannot be accepted as isolation from NATO, they are interrelated and cannot be seen as independent from each other. In actuality, the primary goal of the European nations was to urge the US to support the defense of Europe.

Another significant turning point for Europe occurred in the 1960s. This was France's decision to withdraw from NATO's military wing. As a result of deteriorating ties between Washington and Paris over the country's refusal to integrate its nuclear deterrent with other North Atlantic powers or to accept any collective form of control over its armed forces, French President Charles de Gaulle downgraded France's membership in NATO and withdrew France from the NATO's Military Command Structure in 1966. This was done to pursue more independent defense options (Edward, 2009). The creation of an autonomous nuclear force was the cornerstone of Gaullist defense philosophy. Even while it pales in comparison to the massive arsenals used by the two superpowers, it is nevertheless sufficiently damaging to dissuade an attacker (Dobbs, 1983). Following its military withdrawal, France pushed for stronger European defenses, especially the assumption that the 12 nations of the European Community should play a role in doing so as it created a single foreign and security policy.

The European Political Cooperation (EPC) of the European Communities underwent attempts to include a security component beginning in the late 1970s. During the 1970s, Belgian politician Étienne Davignon proposed what is known as the "Davignon report or Davignon Plan. Its goal was to discuss the problem of European integration and the WEU's part in the process. In the concept, it was suggested that the WEU be changed into a political and armed organization that would operate alongside the European Economic Community (EEC), which later evolved into the EU. The report stressed the requirement for more integration and coordination between European nations in matters of security and foreign policy. To cooperate with the European Economic Community (EEC), it was proposed that the Western European Union (WEU) be transformed into a political and military organization. The Davignon Report attempted to improve European defense capabilities, encourage member state cooperation, and create a single foreign strategy. It was not entirely realized, nevertheless, due to difficulties. To ensure security and stability in Western Europe and to advance European integration, the plan highlighted Belgian efforts in these areas (Kneucker, 1999). In fact, the Common Foreign and Security Policy (CFSP) was developed because of the Davignon Report's implementation. It strengthened the notion of a unified foreign policy for all of Europe and offered the institutional framework for realizing it. The report stressed the need for social justice and protection while underlining the significance of human rights as a fundamental aspect of Europe's history and mission. The Davignon Report was instrumental in advancing European integration and encouraging closer member state coordination on issues of security and foreign policy. It helped to build the CFSP and reaffirmed how crucial human rights are in determining Europe's foreign policy priorities.

In response to opposition to these initiatives from Denmark, Greece, and Ireland, the remaining EC nations all WEU members- adopted the Rome Declaration in 1984, to reactivate the WEU. The Modified Brussels Treaty's clauses had only occasionally been used up until this point (Wessel, 2001). The Rome Declaration of 1984 was a significant turning point in the evolution of the European Union (EU). The declaration set forth a vision for the

organization's future development and addressed the possibilities and difficulties that was currently experiencing. The Rome Declaration placed a strong emphasis on the necessity of closer cooperation among the member states as well as European integration. It emphasized adherence to democratic, human rightsbased, and legal principles. A single foreign and security policy was also highlighted, along with the significance of economic and social solidarity. The Rome Declaration also demanded that the internal market be finished, that the organization's role in the world be strengthened, and that its institutional foundation be improved. The Single European Act of 1986 and subsequent treaties were made possible because it set the stage for increased integration and collaboration within the organization. Overall, the Rome Declaration of 1984 had a significant impact on the direction the organization would take and the depth of its integration.

During the revival of the WEU between the 27 October 1984 Rome Declaration and the 26 October 1987 Hague Platform on European Security Interests, Europeans had the chance to think about their own security, support the idea of creating an integrated Europe that included security and defense aspects, and reinforce the European component of the Alliance. The WEU's existence reflected the efforts of Western European countries to enhance their collective security and defense cooperation. Its dissolution marked a further integration of defense policies within the framework of the EU and the strengthening of the CSDP (Chryssochoou et al., 2018).

The WEU was involved in coordinating military cooperation and defense policy among its member states. It put a heavy emphasis on matters like crisis management, arms control, and defense planning. However, its significance diminished over time, especially after the Cold War ended. One of the outcomes of the end of the Cold War, the fall of the USSR, the breakdown of the Warsaw Pact, and the accession of the former communist countries of Europe to NATO and the EU was the lack of a true adversary. The absence of a true opponent gave the EU Member States a sense of security. However, there has been a major change in the tone of discussions concerning European security and defense during the past thirty years. It's because unipolarity is being established as the new benchmark for the world's political order, replacing the defunct bipolar equilibrium around which the European security architecture was constructed. The EU is increasingly in need of creating its own collective security system outside of NATO because of the deteriorating security situation at its borders because of Russia's and other countries' policies that jeopardize its ability to defend its interests and values. Over the past ten years, the EU security agenda has placed a high priority on turmoil in Europe's periphery (Yakoviyk et.al., 2020:225-27).

The new world order, as envisioned by former US President George H. W. Bush, came into being with the end of the Cold War. In its eastern neighbors, the world order opened a window for more European leadership, increased cooperation, and significant political unification progress. The renewal of efforts to establish a European Army in Western Europe was one unexpected effect of the demise of the USSR (Dedman& Fleay, 1992:11).

The fall of the USSR, the original impetus for a single European defense, suggested the revival of the notion of a European Army in Western Europe. This was a crucial action in which the 1992 Petersberg Tasks were held. The Western European Union was given control over the Petersberg missions by the 1992 Petersberg Declaration. The missions asked that military units from WEU Member States be used for humanitarian, peacekeeping, and peacebuilding missions. The emergence of the internal Yugoslav crisis and the obvious need for US intervention in Kosovo to put an end to the conflict proved that the European Common Foreign and Security Policy (CFSP), which was adopted in 1993 under the Maastricht Treaty, lacked coherence and effectiveness and that it required reform. Germany as a result to ensure advancement in European defense, France and the United Kingdom have taken the lead. Developing an independent European military capability was the focus of the ensuing Franco-German and British-French summits, which were held in Potsdam and Saint Malo, respectively, in 1998. However, rather than creating a separate European Army, the St. Malo Declaration of 1998 emphasized the necessity for a European Rapid Reaction Force capable of carrying out the Petersberg Tasks (Telesca& Caliva, 2018: 2-3). By the end of that year, Europe intends to begin making serious progress toward the formation of a credible, cohesive military force. During a conference in Helsinki, Finland, in December 1999, the leaders of the European Union (EU) declared their intention to create a fast reaction force. This army could deploy up to 60,000 soldiers overseas in only two months and keep them there for at least a year. It could even operate autonomously. The official countdown began at that same minute. A new Political and Security Committee, a Military Staff that may advise EU leaders, and a Military Committee of defense chiefs modeled after the Military Committee of NATO were also announced as part of the announcement (Gordon, 2000:12).

In the 1990s, EU leaders came to realize the CFSP's incoherence and inefficiency and held the opinion that a strong European defense policy would have avoided conflict altogether. Europeans were further incensed by NATO's leadership in Kosovo and Clinton's refusal to serve as a mediator. Although the total number of uniformed men was outstanding, the Europeans first found it more difficult to deploy 50,000 troops than the Americans did (Biscop, 2012). The deficiencies inspired leaders to implement radical defense reforms in and within European defense industries. It must be mentioned that Tony Blair, changed the British perspective on European defense, which reopened the "horizon of possibilities" (Hellman, et. al., 2005:157). Romano Prodi, former President of the European Commission, naturally spoke in support of a European Army, stating that eventually, Europe should have a unified foreign policy, which logically would lead to a common defense strategy and a common army (BBC News, May 9, 1999).

The Helsinki Declaration was widely regarded as a symbol of Europe's new determination to take greater responsibility for its security and perhaps establish an independent military force after decades of failed attempts to develop a strong European military capability. By the end of 2000, the new initiative is expected to be in place. This initiative can be accepted as more serious than its predecessors for some reasons. First, a full-scale engagement with the United Kingdom is made for the first time, as its troops are essential to any effective European military. Second, the war in Kosovo showed Europeans how militarily reliant on Washington they are and will continue to be until significant reforms are done. Third, the Helsinki Declaration does not call for the revival of the Western European Union (WEU), which has been dormant for a very long time. Creating a credible EU defense force, if done right, could benefit all parties by lowering American obligations in Europe, improving, and fortifying the alliance between Europe and the US, and giving Europeans a way to deal with security issues when and where the US is unable or unwilling to step in. What happens, though, if the EU plan is badly executed and turns out to be nothing more than a pointless legislative diversion or even worse, a relapse into the circumstances in the Balkans in the early 1990s, when inconsistencies between European and American institutions caused hopelessness and blame. Therefore, it is important to balance the pros and cons of a stronger and more independent EU with the risks that the new initiative will widen the gap between Europe and America, duplicate expensive NATO structures and assets, alienate NATO's non-EU Member States like Türkiye, Norway, and Poland, and foster an unwarranted sense of military self-reliance in Europe (Gordon, 2000:12-13).

The majority of those taking part in the Helsinki project are familiar with this important idea. The EU defense initiative could, however, easily have a number of unintended and undesirable consequences given that European leaders are now firmly committed to giving the EU a significant role in foreign policy and defense, given that Washington is tempted by unilateralism and is pursuing a national missile defense program that is opposed by most Europeans, and given that tensions are still extremely high because of the pending problems with Bosnia and Kosovo. Together, Americans and Europeans must make sure that the new project strengthens the transatlantic alliance (Gordon, 2000:13).

Following the failure in Kosovo, the "Big Three" (France, Germany, and UK) played a crucial role in building the foundation for eventual advancements in European defense. The direction of the development of an independent military capability was greatly influenced by the French-German summit in Potsdam in December 1998, which was followed by the British-French summit in St. Malo. It was quite a feat for the French and the UK to agree that there was a need for high political collaboration when they normally disagreed since the UK had finally changed its ideas towards European defense (Rutten, 2001). The Atlanticist security preference prevailed when offered the option of maintaining the existing quo, enhancing European defense systems within NATO, or pursuing defense capabilities entirely outside of NATO. The St. Malo Declaration's incorporation into a transatlantic yet European framework highlighted the desire for a European Rapid Reaction Force rather than a permanent European Army, as well as France's decision to forgo its detachment from NATO, in contrast to Blair's belief that Europe relied too heavily on the US and his eagerness to strengthen European defense capabilities (Winn, 2003:52).

At the St. Malo Summit, France, and the UK the only two nuclear armed European military forces and permanent members of the UN Security Council collaborated to dramatically develop European defense technologies. The two players developed the European Security and Defense Policy (ESDP), afterwards renamed Common Defense and Security Policy (CSDP) under the Lisbon Treaty, after putting aside their differences on defense-related issues to do so. The other member nations endorsed this plan and specified the tools to achieve ESDP at the Cologne Summit in 1999: the reform of the armament industry in six countries, (Andersson, 2015) CFSP and a set of rules to make sure that the EU could decide and conduct Petersberg operations effectively. Javier Solana, the former secretary general of NATO, was appointed (Grant, 1999). NATO approved the European plans for ESDP at the Washington summit on April 24, 1999, which was important for the legitimacy and expansion of the program (Hellman et. al., 2005:157).

Significant advancements in EU defense development were spurred by the proclamation. The European Defense and Security Policy, or EDSP as it was called in 2009 as part of the Lisbon Treaty, was launched by France and England as the defensive component of the CSFP. Currently, the CSDP serves as the primary pillar of the CFSP and enables the Union to intervene, taking the lead in missions throughout the globe to promote international security, avert conflicts, and conduct peacekeeping operations (Telesca and Caliva, 2018: 3).

It's crucial to remember that, even though the ESDP's tools did not equate to a standing army, the possibility of greater European independence in foreign policy and consequently, defense has significantly increased. The ESDP agreement provided the framework for following developments, including the need for fast reaction troops and transnational EU Battlegroups overseen by the European Defense Agency (EDA), which was founded in 2004. The Berlin Plus Agreement emphasized ESDP's goal of once again completing the current transatlantic security framework in addition to granting EU-led military operations access to NATO resources and planning skills (Mix, 2013).

The Common Security and Defense Policy (CSDP) was established by the EU as a new policy direction in response to changes in the global and regional security sphere in the twenty-first century. Thanks to the novels about the Lisbon Treaty, CSDP has advanced significantly in recent years. To progress the CSDP, improve the overall defense capability of EU Member States, and meet the need to boost European industry's competitiveness on the global market for security and defense, the European Council took resolutions in December 2013 and June 2015 (Yakoviyk et.al., 2020:226).

As a result of the Lisbon Treaty, significant changes have been made to the EU's security and defense strategy. First, the Treaty stressed the EU's capacity to use the military and civilian instruments of CSDP to uphold peace, prevent conflict, and enhance global security. This strategy was novel because it expanded the scope of the Petersberg missions to include duties involving military advice and assistance as well as joint actions for disarmament, humanitarian and rescue missions, conflict prevention and peacekeeping missions, combat force crisis management missions, including peacemaking and post-conflict stabilization missions. All these responsibilities could be used to support a third country's efforts to combat terrorism on its own soil, among other ways. Finally, the Treaty of Lisbon establishes the normative commitment of the EU to conflict avoidance, management, and resolution as well as to enhancing global security generally. It aims to make the EU more powerful and morally upright on the international stage (Oproiou, 2012: 40-42).

EU's Security Strategy (ESS-2003) and EU's Global Strategy (EUGS-2016)

In the beginning of 2000's there was a new initiative in security and defense named ESS. The EU's Security Strategy (ESS) is a flexible framework that guides the EU's approach to security and defense. It addresses both internal and external threats and strongly emphasizes cooperation and autonomy. The EU's security strategy has evolved over time with the aid of several strategic documents. These comprise the Security Strategy in 2003 the Global Strategy in 2016, and the Strategic Compass (SC) in 2022. These documents have been critical in shaping the EU's security and defense policy because they place a strong emphasis on topics like crisis management, regional stability, and citizen protection. The EU's security strategy emphasizes the importance of internal safety and the connection between internal and external aspects of security in addition to addressing external threats. Strategic autonomy, a major idea in the EU's security strategy, refers to the ability of the EU to establish its own priorities for foreign policy, security, and defense. On December 12 and 13, 2003, the first strategic declaration pertaining to the Union's foreign and security policy was agreed. The European Security Strategy's (ESS) tagline was A Secure Europe in a Better World. The leaders of the EU laid forth the goals of its foreign and security policies as well as the strategies for accomplishing them. The statement also mentioned significant challenges to the continent's security, including as terrorism, the proliferation of WMDs, regional conflicts, failed nations, and organized crime. Therefore, it wouldn't be astonishing to claim that the dynamics of events in the EU and its near neighborhood swiftly demonstrated the offered inventory to be insufficient, and that most of the operational approaches taken soon stopped to be applicable to the overall scenario (Willa, 2019: 49–50).

Arguments for updating it or even creating a brandnew, intricate strategy for the EU's interaction with the international community therefore quickly gained traction. Unfortunately, it violated the letter of the document because it wasn't adopted until June 28th, 2016 (European Global Strategy, 2016). Additionally, this is a typical document from the EU in that it is overly general and avoids being categorical or straightforward. Even an exhaustive list of the threats mentioned by the ESS is missing. In a nutshell, it outlines the top priorities for international policy activities, describes the strategies and tactics for carrying out the presumptions that have been adopted, and finally describes the interests of the EU and its citizens. The norms and principles that direct the EU's exterior actions are also described and shown. The ability of the new Strategy to carry out the procedures defining the Union's military strategy is the document's most crucial component (Samadashvili, 2016: 34).

It thus correctly draws a link between internal and external security and holds that internal security is dependent on global stability. As a result, it plans for larger scale external actions to ensure the Union's internal security. The issue of whether its records will result in concrete and quantifiable activities is still up in the air because it solely depends on the member countries' will. Because populists with Euroskeptic attitudes are currently taking over many governments in Union member states, history has shown us that it is not necessarily inevitable (Willa, 2019:50). Furthermore, a change in mindset is required to approach the Union's function as the world's protector of order. The Strategy was followed by important decisions, which has given experts reason for cautious but covert optimism about implementing the Strategy and reviving the CSDP. It was resolved to establish a military planning cell (Military Planning and Conduct Capability, MPCC) during an EU summit in June 2017. The European Defense Fund, funded by the Union's shared arms programs, was formed together with the PESCO system for normal structural cooperation. The policy is subsequently implemented on an economic and international level thanks to a NATO agreement (Willa guoted from Koziez, 2018: 2; Kuzniar, 2018: 65).

The characteristics of the development of a common EU defense policy will be insufficient without examining the new EU foreign and security policy, shared on June 28, 2016, by EU High Commissioner for Foreign and Security Policy F. Mogherini and dubbed EU Global Strategy "Shared Vision, Common Action: A Stronger Europe," or EUGS. The Global Strategy emphasizes the necessity of enhancing the EU's position as a global security provider. A Global Strategy for its Common Foreign and Security Policy (CFSP) was published by the EU in the summer of 2016. Europeans are urged to take greater responsibility for our security, according to the section titled Security and Defense. We must be capable of recognizing, responding to, and defending oneself against external threats (Meijer & Wyss, 2019:378).

The EU's strategic defense review must be able to advance the strategy, techniques, and capabilities of the EU defense policy in line with the EU Global Strategy, which sets the goals of the policy in the emerging hybridwarfare security environment. The EU's policy review for collective security will face many challenges, one of which is figuring out how to improve defense capabilities without duplicating NATO duties. The danger is that, as NATO invests more resources in fortifying its eastern flanks in response to a more assertive Russia, the new EU defense strategy will place more of an emphasis on the southern neighborhood. The EU's eastern neighbors won't be able to implement the ENP required reforms without a strengthened framework of security sector cooperation. Many of them are still resolving frozen conflicts that could unfreeze at any time (Samadashvili, 2016: 34-35).

One of the most obvious contrasts between the EU Global Strategy in 2016 and the European Security Strategy in 2003 is the widespread usage of resilience as a new leitmotif. The word "legislation" was completely absent from the 2003 paper, yet it appears no less than 40 times in the 2016 EU Global Strategy. It places "resilient" above mentions of "human rights" (which are made 31 times), "democratic/democracy/democratization" (which are made 23 times), and "human security" (which are made 4 times). The wave of crises in Ukraine, Syria, Iraq, Libya, and Afghanistan, as well as terrorist acts in Europe, which signaled the end of a relatively extended era of peace and tranquility, were the main causes of such a shift in emphasis (Yakoviyk et.al., 2020:231). The two approaches are related to one another: The guidelines for the European Security Strategy are established by the Global Strategy. According to the European Security Strategy, security is a precondition of development, and then development is a root cause of resilience, respectively. The EU Global Strategy would have us think the same. The development policy also needs to be more in line with our strategic priorities. The resilience category could be interpreted as a call for increased defense spending. In any case, resilience sends a more positive message than fragility does because it is forward-looking and concentrates on finding solutions rather than dwelling on problems (Yakoviyk et.al., 2020:231).

When the EU realized how silly it truly appeared for Europe to rely on US defense, specifically a nuclear umbrella, a new security plan was developed. The only country that spends more on defense than an EU Member State is US. The defense industry and research base in United Europe are ranked second. France, a nuclear power nation, is also a member of the EU (Yakoviyk et.al., 2020:231). It is obvious that only by working together will EU Member States have the capacity to ensure their own security and profoundly alter the course of the globe. The EU Global Strategy for 2016 identified the lack of international defense cooperation as one of its main issues. Consequently, the Strategy promoted progressive coordination and shared adaptation of national defense planning and capability-building techniques. As the initiative's secretariat, the EDA got to work on creating an annual review process after the EU Council made this claim and approved the concept on November 14, 2016 (Fiott et. al., 2017:46).

The process it initiated led to the initiation of several initiatives on EU defense following the release of the EU Global Strategy in June 2016. The EU, for instance, consented to the creation of a Military Planning and Conduct Capability (MPCC) and a Coordinated Annual Review on Defense (CARD) for non-executive CSDP military operations. With the help of these initiatives, defense coordination will be improved, and CSDP military actions will be planned and carried out more skillfully. The formation of the European Defense support (EDF), which is the first time in history that the EU would construct a financial instrument to directly support the development of defense capabilities, was added to the list of new projects. As chapter three reveals, this is a significant move (Fiott et. al., 2017:7).

In terms of its worldwide breadth and focal points, the EU worldwide Strategy (EUGS) is a large and ambitious initiative. The EU, however, is unable to provide each component of the EUGS the same length of time. The European Commission created The European Defense Action Plan (EDAP) in December 2016, which was built on the priorities, guiding principles, and interests of the EU as stated in the Strategy. The EU-NATO Joint Declaration, which identifies areas of cooperation, was created with the support of specific actions. The main components of EDAP are new financial mechanisms to help Member States and the European military industry improve their defense capabilities as well as new political goals and challenging tasks for Europeans to take on more responsibility for their security and defense. Contrary to assertions made by certain writers, the European Defense Action Plan will not result in the establishment of a European Army or even the duplication of command structures, as they only exist at the Member State and NATO levels. To increase the production volume and effectiveness of defense investment and to ensure that the defense industries of the EU Member States are more creative and competitive, EDAP's main objective is to foster better defense cooperation (Yakoviyk et.al., 2020:231-32).

The EU's notion of strategic autonomy in the military and security sectors is challenging to put into effect. Several national models of the strategic autonomy of EU Member States in their dealings with the US and a model of strategic partnership with the US exist, which explains why. To avoid relying on the American ally for at least part of its security needs, France creates an independent defense strategy within the framework of the Atlantic Alliance. To increase its strategic autonomy, France established the Defense Technological and Industrial Base (DTIB). On the other hand, the UK and the US operate together under a framework of strategic collaboration. The framework for collaboration with the US and other strong EU Member States was laid out in the strategic autonomy models of Germany and Italy. As a result of Brexit, the Union now confronts additional difficulties in pursuing strategic autonomy in security and defense. In actuality, the UK was one of the few EU countries with a fully functional military and defense industry. Brexit might cause the EU to lose up to 20% of its military capabilities and 40% of its industrial and defense assets. The EU's capacity to affect security and defense, both inside Europe and in neighboring regions, will be significantly impacted by this (Yakoviyk et.al., 2020:234). However, the desire for a Europe that can legitimately protect its citizens also drove governments in EU Member States to act. Blown off the dust from the Lisbon Treaty, several nations began reading the Articles and Protocol on PESCO that they had all collectively approved in 2017, reinforcing its emphasis on the defense of Europe. Some believe PESCO may be the treaty-based mechanism required to improve and raise the standard for EU defense cooperation (Fiott et. al., 2017:11).

Permanent Structured Cooperation (PESCO) in 2017

Recent years have seen significant changes to the treaty clauses governing the EU's Common Security and Defense Policy (CSDP), notably between 1997 and 2007. Even more so than the CFSP, the Maastricht Treaty, also known as the Treaty on EU, had several restrictive clauses. Decisions having a defense or military implications were frequently exempted from and susceptible to deviations from the norms and standards of customary policymaking, notably in terms of voting processes. Since the Lisbon Treaty, this exceptionalism has experienced a substantial shift, moving from a set of mostly restraint regulations to one of fundamentally enabling rules, notably those on Permanent Structured Cooperation (PESCO), which are now being actively used. These modifications emphasize the ambiguous link between language and context, between the obligations imposed by treaties and what the strategic and political environment both within and beyond the EU may or may not permit at any time. Additionally, they once again emphasize the unique position that security and military strategy, hold within the framework of the EU institutions. In addition to the European Defense Fund, the Coordinated Annual Review on Defense (CARD), the Military Planning and Conduct Capability, and new common funding guarantees for the Battlegroups, the creation of PESCO is a component of a larger initiative to create a European Security and Defense Union (Novaky, 2018:97). Furthermore, it is crucial to ensure that PESCO's protection of CARD and the EDF operates well. Consequently, effective PESCO governance will be crucial. Regular meetings of the relevant Council bodies (PSC, EUMC, and Politico-Military Group) will be conducted in PESCO format, with the PESCO foreign and defense ministers acting as the meeting's key decisionmakers (Fiott et. al., 2017:49).

The Permanent Structured Cooperation (PESCO) initiative, which the Council approved in late 2017 along

with the Commission's establishment of the European Defense Fund (EDF), is the most ambitious defense initiative the EU has undertaken since the beginning of its Common Security and Defense Policy (CSDP) in 1999. Strategic autonomy is required by the EU Global Strategy and may be attained through Permanent Structured Cooperation (PESCO). To put PESCO into action in 2018, a series of quick decisions were taken, including an initial list of 17 projects. The EU Global Strategy, which governs all the EU's foreign policy, previously mentioned strategic autonomy as an objective in June 2016 (Biscop, 2018:191). On December 11th, 2017, the EU implemented PESCO, a hitherto unutilized provision of the Treaty on European Union (TEU). Since it was added to the EU's toolset in 2009, PESCO has not been utilized, although having the potential to boost the CSDP of the EU. Because of this, it is sometimes referred to as the Sleeping Beauty of the Lisbon Treaty by the Former President of the European Commission, Jean-Claude Juncker (Novaky, 2018:97).

EU governments looked prepared to rouse PESCO from its sleeping beauty, and several of them have subsequently joined PESCO by affixing their signatures to a joint notice. The causes shouldn't be all that shocking. The EU is facing significant security and political challenges because of the 2014 Russian annexation of Crimea, the numerous terrorist attacks carried out on European soil by different Islamist groups, the ongoing migration crisis, changes in US foreign and defense policy, and the UK's decision to leave the EU. In the summer of 2016, a significant response to these issues began (Fiott et. al., 2017:7). In the statement announcing the launch of PESCO: a long-term goal of PESCO might be to develop a comprehensive force package that complements NATO, which will remain the cornerstone of its members' collective defense (Biscop, 2018:191). PESCO provides a framework for improved defense cooperation between participating member states with the aim of enhancing the EU's defense capabilities and achieving strategic autonomy. It seeks to encourage cooperation, coordination, and joint development of defense capabilities, technologies, and military resources (Leuprecht & Hamilton, 2021:80). PESCO projects range a variety of topics, including cyber defense, crisis response operations, military mobility, and secure communications. To ensure commitment and advancement, PESCO projects are monitored at both the national and EU levels. The major goals of PESCO are to assist the Union's overall security and defense and to improve the EU's capacity to respond to security issues.

The EU has united behind a rise in strategic autonomy in defense to make up for its diminished credibility, the loss of the UK, and the diminishing American security presence in the region. In contrast to past proposals like the Common Security and Defense Policy (CSDP) and European Security and Defense Policy (ESDP), PESCO aims to strengthen European defense cooperation. Additionally, it builds on the initiatives' efforts to facilitate EU autonomy from NATO, as this desire arose partly because of how NATO handled the various Yugoslav conflicts (Leuprecht & Hamilton, 2021:81-82).

It offers an enforceable framework for capable and willing EU Member States to cooperate more closely on security and military operations by coordinating efforts to strengthen the deployability and capabilities of soldiers (Novaky, 2018:97-98). When examined more closely, it becomes clear that PESCO differs from earlier agreements that had the same goal of bolstering European defense in terms of benefits and difficulties. To start, EU Member States can choose not to participate in PESCO, which is intended to reduce commitment issues. Second, because there is such a small pool of resources available for this voluntary agreement, PESCO is organized top down and makes use of already existing EU institutions. However, there are drawbacks even though states are not required to commit their own funds and resources. And finally, every PESCO contract that a state chooses to sign is enforceable in court. To guarantee that they are upholding PESCO agreements, each member must submit a National Implementation Plan (NIP) outlining yearly progress (Leuprecht & Hamilton, 2021:82).

In a significant speech delivered just ten days after PESCO was activated at the annual conference of the European Defense Agency (EDA), the High Representative, Federica Mogherini, set an example for others to follow by emphasizing again that PESCO is not intended to create a European Army. PESCO will complement NATO and not infringe upon the Alliance's rights (Biscop, 2018:191). However, the US Pentagon openly stated its objection to the European Defense Fund (EDF) and the Permanent Structured Cooperation (PESCO) in a scathing letter to Federica Mogherini. The letter expresses concern that this operational structure will lead to redundant systems, noninteroperable military hardware, the misuse of scarce defense budget dollars, and unwarranted rivalry between NATO and the EU. How the major power's concerns regarding levels of cooperation and competition and the strategic use of military resources conflict with one another is instructive and insightful. The US needs to strike a balance between its long-held desire for partners to shoulder more of the burden and its goal to avoid unintentionally promoting greater partner military autarky that may weaken the US's influence over its allies (Leuprecht & Hamilton, 2021:79).

PESCO is likely the only way NATO can foresee genuinely major advancements in European capabilities in some of their important fields, notably strategic enablers. Due to this, even if all of Europe's allies invested 2% of their GDP on defense, they would only be able to afford capital-intensive enablers if they pooled their defense expenditures rather than spending 2% of GDP on defense independently. NATO doesn't have a mechanism for such, but PESCO has given the EU one. The Alliance and the Union stand to gain from this (Biscop, 2018:192). There are valid grounds to expect more from PESCO since it differs fundamentally from all previous projects. First off, it is really Member State driven; PESCO would not have been launched if France and Germany had not taken the initiative and subsequently garnered the backing of the other Member States. Second, it cannot just vanish and stop existing because it has been institutionalized. The National Implementation Plans that Member States are required to create each year will be evaluated by the Council since it is now a component of the EU machinery. Third, as a reward for taking the initiative, the EDF of the Commission enables Member States to obtain co-funding from the EU budget for the first time. Naturally, there is no guarantee that PESCO would uphold its commitments. The Member States have access to the tool; their task now is to use it efficiently. Nevertheless, there's a significant probability it will occur (Biscop, 2018:192).

The Permanent Structured Cooperation (PESCO) has the potential to revolutionize defense cooperation within the European Union (EU). If the participating member states uphold their legally binding PESCO commitments, it could assist the Union in achieving strategic autonomy. For this to happen, PESCO's implementation must be closely supervised at both the national and EU levels. There should be consequences for those member states that do not uphold their obligations. If not, PESCO will become yet another much-awaited EU security and military initiative that fails to live up to expectations, just like Battlegroups ultimately depend on political will (Novaky, 2018:97-98, 103).

EU's Strategic Compass in 2022

The Strategic Compass of the European Union is a framework created to guide and bolster the EU's security and military operations. With the goal of acting as a development roadmap for the EU's goals in terms of security and defense, it was agreed in March 2022. It aspires to strengthen the EU's military policy while advancing world peace and security. Several securityrelated topics are covered in The Strategic Compass, including military aggression, state terrorism, and natural disasters. It includes detailed suggestions and timeframes for the upcoming five to 10 years, acting as a blueprint for action. The Strategic Compass' adoption reflects the evolution of Common Security and Defense Policy of the EU and how that shift has impacted the dynamics of EU security and defense. Additionally, it influences the cooperation between the EU and Ukraine as well as the bolstering of transatlantic and international security.

The Strategic Compass, a significant document approved in March 2022, outlines the security and defense strategy for the EU for the ensuing ten years. It serves as a road map for the advancement of the EU's security and defense ambitions, building on earlier strategic documents like the Global Strategy in 2016 and the Security Strategy in 2003. With the introduction of the European Security Strategy in 2003, a determined attempt was made to provide the security instruments required for Europe to begin standing on its own two feet. Although ambitious, the project ultimately turned out to be beyond the Union's current capabilities. The European Union's Global Strategy presented a second chance in 2016.Given the misguided lesson of the 2003 Strategy, a more cautious effort is made to establish a security foundation for the Union. Security cannot be attained by relying only on oneself, as the document's title suggests, but rather calls for a global strategy. Even the harshest EU critics agreed that the 2016 Strategy had undergone significant revisions, making it more likely to be successful. To give it even more strength, the 2020 European Commission Security Union Strategy and the Defense and Space Packages, both of which were unveiled by the same European Commission in February 2022, were introduced (Branda, 2022:237).

The EU's security and defense programs benefit from the Strategic Compass' (SC) analysis of the strategic environment and efforts to improve the EU's cohesiveness and sense of direction. The SC highlights the need to gradually improve the EU's civilian and military command and control structures as well as the need to make sure that the Military Planning and Conduct Capability is fully capable of planning, directing, and overseeing both nonexecutive and executive activities and operations. The SC also states that once EU Battlegroups reach their maximum operational level, they will be under the command and direction of a designated national operational Headquarters or an EU Military Planning and Behavior Capability operating inside the ERDC framework (Tulun, 2022:2).

The Strategic Compass aims to create a framework for managing and enhancing EU security and defense capabilities. The document emphasizes the need for a comprehensive and integrated approach to security, acknowledging that threats to the EU can be military, hybrid, or non-military in nature. Topics like crisis management, resilience, capability development, and strategic autonomy are given a lot of attention. Additionally, the Strategic Compass aims to strengthen the EU's position as a significant player in global security and defense by highlighting the importance of collaboration and partnerships, both within the EU and with other international actors. The Strategic Compass, taken as a whole, is an essential document that guides the EU's strategy for security and defense with the goal of strengthening the EU's ability to handle current and upcoming security challenges and protect its citizens. The Strategic Compass discusses international security in terms of location. It does, however, give bordering countries a lot of attention, highlighting their special significance to the EU. More specifically, it calls for an expansion of the EU and NATO's political and military cooperation. The Strategic Compass doesn't seek to replace NATO or make it less effective. Instead, the document repeatedly emphasizes that by putting it into action, the EU will become a more valuable partner for NATO and the US. The document is supported by several significant announcements for increased defense spending, especially considering Russia's invasion of Ukraine. This suggests to the US that the EU will take extra measures to ensure its own security. (Atlamazoğlu & Moyer, 2022).

The Russian invasion of Ukraine damaged the peace in Europe and changed its security environment. EU foreign, security, and defense policy must adjust adequately. On February 24, 2022, Russia began a military operation of unreasonable and unlawful aggression against Ukraine. In 2014, it annexed Crimea, supported the pro-Russian separatists in control of some areas of the Donbas, and engaged in hybrid warfare with Ukraine. In addition to subjugating Ukraine, the attack seeks to destroy democracy in Europe and change the overall security system. In response, the EU has given Ukraine comprehensive support, including military aid. Furthermore, it has imposed severe sanctions on Russia and is modifying its diplomatic, security, and defense policies to reflect the new reality (Przetacznik, 2022).

The Versailles Declaration, issued by EU leaders on March 10-11, 2022, reaffirmed the EU's resolve to "take more responsibility for its own security" and strengthen its "capacity to act autonomously" while recognizing the value of cooperation between the EU and NATO. By increasing their defense spending, cooperating on projects, such as joint procurement, investing in military capabilities, such as strategic enablers, enhancing research and innovation synergies, and growing the EU's defense industry, the EU Member States committed to investing more in defense capabilities and cutting-edge technologies. The EU leaders approved the Strategic Compass, "an ambitious plan of action for bolstering the EU's security and defense strategy by 2030," on March 21. The Strategic Compass identifies Russia's assault against Ukraine as a "major geopolitical shift" that imperils EU interests. To achieve a "quantum leap forward" in security and defense, increase the EU's capability and willingness to act, strengthen its resilience, and ensure solidarity and mutual defense, it commits the EU-27 to investing in and developing defense capabilities, collaborating with partners, crisis management, and enhancing resilience (Przetacznik, 2022).

EU member states and institutions are now more concerned about defense following Russia's invasion of Ukraine. However, NATO and the US remain crucial to Europe's security. Significant advancements targeted at enhancing European defense capabilities have been driven by Russia's war in Ukraine. Ukraine's potential to revolutionize EU defense, though, depends on point of view. One the one hand, it is evident that EU leaders concur on the necessity to reevaluate the Union's security and defense capabilities and budget to become more strategically autonomous. In this regard, the European Peace Facility (EPF) is a crucial tool that is now aiding Ukraine and enabling the EU to pay member states back for contributed munitions from existing inventories. The EPF is not included in the EU budget. The EU's political identity as a defense actor will be affected by this, as well as whether it will become a structural commitment in the bloc's budget (Csernatoni, 2023). Without а comprehensive plan for the European defense industry and without it being put into action, the money coming from the EU budget just drives up costs rather than

expanding industry capacity and military capabilities (Ehl, 2023). If the US decided to stop playing the major military support role for Ukraine after the presidential election in November 2024, it might represent a turning point. The EU's institutions and member states would need to significantly up their level of military assistance to make up for a less assertive US (Heisbourg, 2023).

If the war continues, the European Union will be fragile, damaged, and unstable. Additionally, it won't be able to cope with the immense challenges made worse by Russia's invasions of Ukraine in 2022. It has made Europe more and more dependent on the US for supporting in Ukraine. Furthermore, it has not yet developed a strategic perspective based on security and physical power. In 2024, it won't matter who is elected as the next president of the United States since Europe won't have a powerful and integrated security system (Dempsy, 2023).

Current Debates About European Army

The idea of European Army gained popularity in the 2000s for a variety of reasons. It is important to ask the question that; despite the several initiatives in security and defense what the reason was to dream about a European Army and what the actual motivation behind that idea is. An important turning point in the political development of Europe was seen as the perforation of national states by immigration, integration, and trade, necessitating the need for improved security and defense capabilities. The need for a European Army to ensure security on the continent was also influenced by the deteriorating ties between Russia and the EU following the Russo-Georgian War in 2008 (Cross & Karolewski, 2021). The unwillingness of member states to cede sovereignty as well as different values and security goals, however, were barriers to integration in defense policy (Angelucci & Isernia, 2019). Overall, the desire for a European Army in the 2000s was influenced by geopolitical changes, shifting social dynamics, and the need for a European security system.

However there have been discussions and disagreements about the concept of a European Army. While some contend that a European Army could improve European nations' security and defense capacities (Gülmez & Gülmez, 2020) but some argue that the European Army is a utopic idea and even a counterproductive project. The notion of a European Army has been regularly debated at the highest levels of the EU. Emmanuel Macron, Former President of the French Republic, stated on November 6, 2018, that we won't be able to protect the Europeans if we don't decide to build a truly European Army. Former German Chancellor Angela Merkel stated on November 12 that we must create a plan for eventually forming a truly European Army. However, former Chief-of-Staff of the Armed Forces General Pierre de Villiers asserts that the European Army is a dream, which could turn out to be a nightmare (Le Gleut& Conway-Mouret, 2019:90). Overall, the creation of a European Army is a complicated issue that needs to be carefully considered from a variety of perspectives.

The idea of building a European Army was first put forth by Former German Chancellor Angela Merkel and the leaders of the "Visegrad Four" (V4) countries of Central Europe on August 26, 2016, and it was a far cry from the more modest proposal of enhancing European defense cooperation and capability. Given Poland's dedication to NATO and transatlantic ties, which are frequently used as justifications to oppose further EU integration, it is surprising that Poland was a part of the initiative (Oxford Analytica, 2016). In terms of threat perceptions, capabilities, and defining a shared hierarchy of security challenges, there are obstacles and differences among European countries (Meijer & Wyss, 2019). Concerns are also raised regarding the impact on NATO and transatlantic relations. To modernize and integrate European defense companies, organizations like the European Defense Fund and the Coordinated Annual Review on Defense (CARD) were established. The primary goal of these initiatives is to strengthen the European defense industry and provide it with the latest technologies (Ciupiński, 2023). The CARD will be put through its paces at the end of 2017, and the Agency is tasked with informing the EU defense ministers of the results every two years. The defense review will provide a better EU level perspective of matters including defense budget and national investment as well as defense research activities, according to the Council's findings from March 6, 2017. However, it won't be a tool for enforcing punishment or taking control of national defense expenditure plans (Fiott et. al., 2017:46).

Possible "Pros" and "Cons" of the Creation of European Army

Several members of EU have expressed support for the concept of a European Army. France has long been a vocal supporter of the development of a European Army, as evidenced by its participation in the proposal for a European Defense Community. As evidenced by German officials' involvement in programs like Permanent Structured Cooperation (PESCO) and the European Defense Fund, Germany has also expressed support for increased defense cooperation within the EU. However, it is significant to note that member states' levels of support for a European Army may differ, and there may be varying opinions and concerns about the creation of such a military force. Firstly, one of the possible advantages would be enhanced security that a European Army may enhance the defense capacities of European nations, providing a framework for collective security. Secondly, greater efficiency and cost-effectiveness in defense operations may result from consolidating military capabilities and resources. Thirdly, the promotion of unity and solidarity among European nations could be facilitated by a European Army. Moreover, a competitive European defense industry might emerge because of the creation of a European Army. Besides the advantages also

possible disadvantages must be revealed. Here we must start with the sovereignty issue that it may be contentious for member states to give up some control over their defense strategies to establish a European Army. Secondly some problems may arise because of the different threat perceptions. It is difficult to define a common hierarchy of security challenges in Europe because each country has a different perception of threats and security goals. Third as one of the most important one is about the impact on NATO. Potentially affecting NATO's role and relevance, the creation of a European Army could also exacerbate transatlantic tensions. Lastly strong political will and coordination would be necessary to establish a European Army.

The development of national identity and solidarity has traditionally been significantly influenced by the army. The exclusive use of force is the defining characteristic of sustainable state-building. More than any other institution, the armed forces serve as a symbol of the relationship between the state and its citizens as well as the state. National governments deliberately impede the progress of military-political integration because of fear that their sovereignty would be lost if a European Army and united defense policy are developed (Yakoviyk et.al. 2020:227).

However, some argue that we are far from having a highly developed European Army, which is a rational goal that is impossible to achieve even in the long term and is not likely to happen anytime soon. Whose instructions would such a European Army follow? What moral standards would it uphold? Would Europeans be prepared to risk their lives to join such an army? Given the divides within the EU, might it not run the risk of producing an organization that would be more bureaucratic than effective? Avoiding terms like European Army, which are viewed as troubling abroad. All Europeans who value their national sovereignty are wary of the essentially federalist concept of a European Army. Beyond that, though, these terms raise issues because they fuel worries that the protection offered by NATO, which is believed to be effective, may gradually be replaced by a system that is still poorly defined, as well as worries that American disengagement in a virtual sense may ultimately lead to American disengagement in a real sense (Le Gleut & Conway-Mouret, 2019:91).

Though premature and unwise, expecting a European Army in the upcoming decades is preferable than the idea that one would never exist. Just as Schuman said in 1950 that Europe would not be formed all at once or according to a single blueprint, the basis of a European Army will be gradual achievements and developing solidarity among its members. Through these forward-thinking areas of cooperation, the EU will be able to act decisively and handle the new security and military issues facing the Union (Avezou, 2021).

Some argue that it can be counterproductive to use a European Army because the idea has become toxic in many quarters. An initiative may encounter resistance that it wouldn't otherwise encounter if it were presented as a step towards a European Army. Particularly when the European Commission and its former President Jean-Claude Juncker discuss a European Army, it tends to exacerbate the negativity of those who were already Eurosceptic. It is crucial that the EU and NATO do not make demands on those forces that are contradictory or incompatible since there is only one set of forces that are available to Member States. It is also important to avoid duplicating jobs and organizational structures due to the restricted resources. These have been the EU's defense policy ever since the CSDP was established. It's also important to control expectations. Both the EU and NATO have made significant defense declarations in the past amid much enthusiasm, only to have them guietly cease without having any significant impact. Therefore, it makes sense that many people today are skeptical of PESCO, yet another defense initiative. Some people, however, have expectations that may be a little over the top and overly enthusiastic. Before the Member States significantly increase their military capability and attain a high level of strategic autonomy through PESCO and the EDF, it will take some time (Biscop, 2018:191).

Since NATO's establishment, it's possible that European nations have relied too much on the US for their own protection. While European nations fall short of the statutory requirement, the US meets about 70% of the annual defense bill for all NATO members. Europe cannot continue to rely only on America for security, as shown by the last American government and the current political upheaval. Senior administration officials received a warning from the US's Former President Trump in 2018 that he would remove the US from NATO, leaving Europe in a vulnerable situation with Russia. The amount of money that several allies were spending on defense displeased Trump. (Avezou, 2021). In early June 2020, Former US President Donald Trump announced intentions to remove some of US' troops from Germany, cutting the nation's military presence there by 30%. In the opinion of the US, Germany and much of Europe have lost their credibility as allies in defense strategy due to their insufficient financial contribution for NATO. According to Europe, Trump's assaults endanger the alliance's cohesion (Bochert, 2020). President Biden underlined NATO's importance and need for American security and stability, but Trump's remarks should serve as a wake-up call for Europeans to recognize their own defense-related responsibilities. Given that Russia regularly conducts deadly military maneuvers on its western border, the potential US withdrawal from NATO would have been devastating for European security (Avezou, 2021).

The political leaders of the EU are under pressure to find new methods of ensuring the security of the continent because of Trump's criticism of NATO from the west and Russian military activities in Ukraine putting Europe's security in danger from the east. The days of being able to depend on others without hesitation are gone, according to Former German Chancellor Angela Merkel. Therefore, if we Europeans want to remain a cohesive group, we must decide our own fate. Trump's decision to withdraw some part of US troops from Germany may encourage the EU to develop its own military strategy even though his goal is to strengthen NATO by requiring that each member contribute an equal amount of money. Trump's pressure may advance the kind of military fusion in Europe that has long been advocated but never fully realized (Bochert, 2020).

The EU continues to be a target of hybrid warfare, terrorism, cyber threats, and other problems even while the chance of dynamic wars in Europe is low. The EU and its members are simultaneously facing dangers that are more diverse than ever. The EU cannot continue to be as significant as it is on the global stage as threats multiply and get more complex if it only relies on its soft power. 2018 saw the inauguration of Emmanuel Macron, who declared that for Europe to defend itself more effectively on its own, a truly European Army was necessary. But what exactly does the term European Army mean? Would the EU control the military on a supranational level, as the EDC suggested, or would it be a pan-European military with national components? Many Europeans may find the idea of an EU army unsettling because they may view it as a further erosion of national sovereignty and want to maintain the national prerogative on matters of defense and security. Brexit or efforts by the Hungarian government to marginalize some of their most disadvantaged groups show that the desire for more national authority over a range of sectors inside the EU is a recurrent problem (Avezou, 2021).

An EU army would be opposed by eight of the twentyseven EU countries, according to 2017 Eurobarometer research. However, 68% of Europeans believe that the EU should take a more active role in matters of security and defense. According to the Standard Eurobarometer survey, taken between 18 January and 14 February 2022, 77% of Europeans are in favor of a wide shared defense and security policy, with majorities in favor of such a policy in each Member State. Former German Chancellor Angela Merkel said, "We have to work on the vision of one day creating a proper European Army" in November of last year. This vision demonstrates how the creation of a European Army may in fact result in greater defenserelated collaboration and solidarity amongst European nations. In that perspective, a larger European Army would support NATO's role as a security supplier by reinforcing European defense (Avezou, 2021).

The aspirations of Europe for a common defense may be doomed by external pressures from global actors. The EU has been working hard to build up its military capabilities, but the US has been particularly resistant out of concern that this might reduce US influence over regional military choices. A united European defense community could exclude US defense contractors, which is another reason why the US is afraid of European military integration. Kay Bailey Hutchison, the Former US ambassador to NATO, acknowledges they do not want this to be a protectionist vehicle for the EU. They want Europeans to be capable and powerful, but we don't want them to barricade themselves off from US goods. The US has long opposed deep military integration in Europe, whether directly or through aggressive lobbying in the European Parliament (Bochert, 2020).

The European External Action Service (EEAS), which serves as the EU's diplomatic presence abroad, was developed because of the Common Security and Defense Policy (CSDP) that the EU adopted. The EU can take part in and direct operations for crisis management and peacekeeping thanks to the CSDP and EEAS. Despite being a promising beginning, these factors do not make the EU a potent security supplier. The EU has 27 brains and 1 arm without a clear sense of European strategic autonomy. When all the EU's members are considered, the EU ranks third in terms of global military spending, behind only the US and China. The EU wastes an estimated €26.4 billion yearly because of duplication, overcapacity, and procurement restrictions for defense. They could all save time and money if the European military were to be more integrated, for example by establishing a standard certification process for ammunition. Spending more prudently and cooperatively would therefore be the first step toward the creation of a European Army (Avezou, 2021).

However, it is still unclear that what should be the EU's military role. Member states have different viewpoints on the subject and NATO is already responsible for ensuring European security. In this context what EU must do to strengthen its military capabilities without offending its neighbors in Brussels? There is a chance for the EU to provide a significant military contribution during severe emergencies that are below NATO's Article 5 threshold (Braw, 2022).

The possibility of establishing a European sovereignty in defense has been the subject of active discussion between Europeans and the US during discussions on the strategic autonomy initiative for the EU. Even though it is widely acknowledged that the term "European Army" is one of the most inaccurate because it is frequently used to refer to the process of fully federalizing Europe, analytical reviews on this topic dominate the research due to the arbitrarily long time since the beginning of strategic independence and the degree of ambiguity related to its origins. It is challenging to explain EU defense policy. However, ineffective communication by the institutions based in Brussels helps Eurosceptics and jeopardizes public confidence in union policy. There is no phrase more destructive or deceptive than "European Army" in particular. Plans by the EU to bolster defense strategy will not result in the formation of a unified European Army or an international military alliance. Even a true defense policy cannot be the EU's. The EU does not, like NATO, defend its territory from invasions by other nations. Instead, the part of EU international security policies that deals with the military is generally referred to as defense policy in the EU (Keohane, 2016).

Member States of the EU should concentrate on fostering more trust and collaboration inside NATO as they lack the ability or will to pursue a single policy. To build an army there is a need in coordination and leadership skills. EU nations that debate every political choice are unable to lead in the manner desired by such an organization. They may believe they have a good understanding of how to coordinate their separate military, but this is only possible because of the established American leadership and organizational framework in NATO. (Özkızılcık, 2021).

As they lack the capacity or desire to pursue a common agenda, Member States of the EU should focus on developing greater confidence and cooperation within NATO. Despite claims to the contrary made by representatives of European governments, the transatlantic cooperation is not being strengthened by this search for autonomy. The alliance is not strengthened by the concept of a European force; on the contrary, it loses importance. The most often discussed issues here include the expansion of the defense budget, the role of European countries within NATO, military capabilities, and strategies for alleviating the burden on the US military inside NATO. If the objective was to boost cooperation and become a trustworthy and valuable ally to the US. The transatlantic alliance is currently being criticized in a discussion throughout Europe.

Despite what EU and French leaders have maintained, a European Army is not a workable answer. The EU would lack the requisite resources, capacities, knowledge, and public support even if it were to effectively bridge the substantial gaps between its member states, which would be a massive endeavor.

Motivations of Emmanuel Macron and Angela Merkel About the European Army

In line with the larger objective of European integration, which has been a cornerstone of the EU project, support for a European Army is appropriate. In November 2018, Macron and Merkel assessed a united European Army. A shared military force and a common defense policy are seen by France and Germany as essential steps towards fostering greater integration and cohesion among EU Member States. They hope to foster trust, foster solidarity, and strengthen the ties that bind the EU together by cooperating on defense issues. The fact that France and Germany are in favor of establishing a European Army demonstrates their shared goals of improving defense cooperation, reducing reliance on outside parties, and fostering strategic autonomy for the EU. Both nations seek to increase Europe's defense capacity, promote greater integration, and guarantee the protection of European interests by promoting the creation of a European Army. But to make a European Army a reality, EU Member States must continue to uphold their commitment to unity and cooperation while navigating obstacles and concerns.

In addition, establishing a European Army is viewed to lessen Europe's reliance on external actors, like the US, for its defense requirements. The goal of France and Germany is to lessen reliance on NATO and increase Europe's strategic autonomy. In terms of defense and security, they picture a Europe that can act on its own, defending its own interests and taking a more active part in world affairs. The French government's support for a European Army is consistent with its larger security plan for the twenty-first century, which emphasizes the need for a powerful and independent European defense capability.

Macron's plan for a European Army has gained support, but it also has issues and limitations. Some of the issues raised include the concern over national sovereignty and the potential impact on current defense infrastructure in member states. Furthermore, it may be difficult to agree on the creation and operation of a European Army due to the disparate interests and priorities of EU Member States. Moreover, the establishment of a European Army will necessitate careful consideration of several factors, such as political will, cooperation among member states, and the capacity to address issues pertaining to national sovereignty and existing defense structures.

Despite taking part in the NATO and EU expansion in the years that followed, France never released any documents outlining its security strategy. France did not start creating comprehensive texts outlining its military and national security strategy until the end of the first decade of the twenty-first century, when Europe and the rest of the world found themselves in the process of rebuilding the international order. The first report, which was published in 2006, covered France's stance on this pervasive issue as it emerged as the biggest danger to the nation. Then, in 2017, the Strategic Review of Defense and National Security was released, after the publication of White Papers on Defense and National Security in 2008 and 2013, respectively. These publications describe France's security goals, methods for accomplishing them, obstacles, and dangers. They contribute to a thorough knowledge of both global security and security on a local, social, and individual level. In their programming, they advocate for France as a European and world force (Zieba, 2022:3).

France, as expressed by Macron, wants to maintain its complete position of sovereignty, and believes that it is important to protect our sovereignty over the future. In that case, many other Member States agree with France. The encouragement of multilateralism, the formation of strategic alliances, and the pursuit of European autonomy should coexist with the desire for sovereignty. Building European strategic autonomy while preserving national sovereignty is not at all adversarial, notwithstanding the opinions of several Heads of State, notably the President of France (Yakoviyk et.al., 2020:230).

To create a European force, France has often stated its ambition. But Paris is particularly interested in seeing Europe break away from the US; this is because France's objective is to have Europe become more reliant on France and less on the US, Paris has used the political tensions over maritime boundaries between Greece and Türkiye to further its neo-Napoleonic objectives. Because of its desire for a European Army, more independence from the US, and defense of Russian expansionism, it has been questioned if France is a Trojan Horse within NATO (Özkızılcık, 2021). Macron never intended to suggest that the EU should somehow displace NATO, nor did he ever seriously push for a European Army to defend Europe from the US. He did assert that for Europe to be able to defend itself against security threats, it needed to become more independent from Washington. Additionally, he did mention the US as a potential source of cyberattacks against Europe during that same address, particularly considering prior American cybersecurity operations that had intercepted private talks between European leaders, including Merkel (Brattberg and Valasek, 2019: 14).

Merkel's goal of fostering defense cooperation among EU Member States, reducing reliance on outside actors, and fostering strategic autonomy is what motivates her to create a European Army. The desire to improve defense cooperation among EU Member States is one of the primary drivers behind Merkel's support for a European Army. Merkel thinks that a single European defense force would promote improved interoperability, effectiveness, and cost-effectiveness in dealing with shared security challenges. A European Army could improve Europe's collective defense capabilities and contribute to a more secure and stable continent by pooling resources and expertise. The pursuit of strategic autonomy is another motivation behind Merkel's support for a European Army. She sees a Europe that is less dependent on external actors, like the US, for its defense requirements. Europe can assert its independence and take a more active part in determining its security environment by enhancing its own defense capabilities. Merkel believes that a European Army would help to lessen Europe's reliance on NATO and increase the EU's capacity to act independently in matters of security and defense. The larger objective of European integration is consistent with Merkel's proposal for a European Army. According to her, a unified military strategy and common defense policy would strengthen the EU Member States' sense of cohesion and advance the integration process. European nations can foster solidarity, trust, and the ties that bind the EU together by cooperating on defense issues. Merkel's plan for a European Army has gained support, but it also has issues and limitations. Some of the issues raised include the concern over national sovereignty and the potential impact on current defense infrastructure in member states. Furthermore, it might be difficult to come to an agreement on the creation and operation of a European Army due to the disparate interests and priorities of EU Member States. To advance with this ambitious project, Merkel's strategy involves navigating these complexities and identifying areas where member states can agree.

Viewpoint of US Concerning the European Army

Historically, the US has been a steadfast supporter of NATO and has emphasized the significance of transatlantic defense cooperation. While the US acknowledges the EU's efforts to strengthen its defenses, there are differing opinions on whether the EU should establish an army. The US perspective considers the potential impact on transatlantic cooperation. The US has expressed worry that the creation of a European Army could duplicate NATO's efforts and potentially weaken the alliance's cohesion. The US emphasizes the significance of NATO as the primary structure for European collective defense and supports continued cooperation within this existing framework. The US viewpoint includes the requirement for NATO and the EU to have complementary capabilities. Instead of duplicate or compete with NATO's efforts, the US encourages the EU to concentrate on developing capabilities that support and strengthen them. Utilizing resources effectively and preventing needless extraneous effort are the goals of this strategy. The US has repeatedly urged greater burden sharing among NATO members. According to the US, establishing a European Army might help ensure that Europe's defense responsibilities are distributed more fairly. By constructing their own defense capabilities, EU Member States could reduce some of the burden on the US and contribute more proportionately to group defense efforts.

The development of a European Army continues to be controversial in the eyes of the US. While acknowledging the EU's desire for improved defense capabilities, the US stresses the significance of maintaining transatlantic unity, making sure that capabilities are complementary, and encouraging burden sharing within the confines of the current NATO framework. The US point of view emphasizes how important it is for the EU and NATO to continue working together and coordinating to effectively address shared security challenges. The military might of the US and the NATO alliance has been essential to Europe's defense since the end of World War II. Considering growing challenges, European leaders are now seriously debating a future in which they undertake their own military operations. Although the necessity for European military independence from the US has been discussed for years, the US decision to withdraw from Afghanistan has forced states and non-state armed groups to reassess their reliance on the US.

Regarding the emergence of a more independent European defense identity outside of NATO, the US has expressed a variety of worries. Over the past ten years, CSDP has largely been viewed with skepticism and apathy in America. Washington continues to view European defense through the lens of purely transatlantic security, with NATO as its pillar. Most current American attitudes are the consequence of decisions made by prior administrations, but the Trump administration has a particularly unfavorable opinion of EU defense that is influenced by its larger Euroscepticism. In contrast to previous US administrations that tended to support most initiatives, European integration's the Trump administration is ideologically inclined to view the EU as a supranational organization that restricts the national sovereignty of its member states and is an economic competitor to the U.S. (Brattberg and Valasek, 2019: 14).

This argument has been influenced by some of the terminology that European authorities regularly employ when describing their military policy. The use of phrases like "strategic autonomy," "European Army," and "sovereignty" carries the risk of giving certain American officials the idea that new EU military initiatives are an attempt to minimize the role of NATO in guaranteeing European security or are purely a response to Trump. Many Atlanticists in Washington who are usually dedicated to keeping the US engaged in NATO are dissatisfied with the idea of strategic autonomy because it fits into a political narrative of unappreciative Europeans attempting to distance themselves from the US. Worstcase scenario: Isolationist and Euroskeptic inclinations in Washington may be aided by American politicians' ignorance of the intricacies of European defense discourse. A lesson can be learned from Trump's furious retort to Macron's comments on a European Army before the 100th anniversary of World War I in France in November 2018. Because Trump perceived his French opponent's statements as a danger to himself, he responded aggressively to him (Brattberg and Valasek, 2019: 14-15).

With a unified military, Europe would finally be able to defend itself effectively without requiring outside assistance. It would be sufficient to simply coordinate efforts and broaden the European Defense Agency's mandate. Importantly, none of that would call for the ceding of national military sovereignty, and member states could save money if they invested jointly in European industrial defense projects and had coherent individual defense spending plans. There are plenty of reasons to integrate the military and plenty of solutions for doing so, the only thing lacking is political will. By providing military support, the US lulled European leaders into a false sense of security and made the task of creating a European Army seem insurmountable. The EU's development of its own military strategy may now be influenced by Trump's decision to withdraw some of the troops from Germany. The perception that North American and European international security interests are mutually exclusive has obscured the potential of a united European front. The future of Europe depends on placing the issue of increased military integration at the top of the political agenda for the continent (Bochert, 2020).

Conclusion

As we've already stated the idea of a European Army has generated a lot of debate. While some claim that a European Army might strengthen the security and military capabilities of European states, others claim that the proposal is unrealistic and perhaps a waste of time. There are barriers and variations across European nations in terms of threat perceptions, capabilities, and identifying a shared hierarchy of security issues. Concerns about the effect on NATO and transatlantic ties are also voiced.

The development of a European Army may, however, should be met with various amounts of support from member states as well as differing perspectives and concerns. First, a European Army may improve the military capabilities of European states, creating a framework for collective security. This is one of the potential benefits. Secondly, by combining military skills and resources, defensive operations may become more effective and efficient. Third, a European Army may make it easier to promote solidarity and cooperation among European states. Furthermore, the development of a European Army may lead to the emergence of a competitive European defense industry.

Along with the benefits, potential drawbacks must also be disclosed. To form a European Army, member states may be reluctant to give up part of their influence over their military policies. This sovereignty problem must be addressed first. Second, varied danger perceptions might lead to certain issues. Because each nation in Europe views threats and security objectives differently, it is challenging to establish a consistent hierarchy of security issues. The influence on NATO ranks third as one of the most significant. The development of a European Army may potentially change NATO's function and significance and may heighten transatlantic tensions. Finally, creating a European force would require significant political cooperation and will.

Some claim that because the notion has proven controversial in many lines, using a European Army may be harmful. If a project is framed as a step toward a European Army, it may face opposition that it wouldn't otherwise face. Since there is only one set of forces that are accessible to Member States, it is imperative that the EU and NATO do not place demands on those forces that are incongruous or incompatible.

Different member nations have different opinions, and NATO is already in charge of maintaining European security. During grave circumstances that fall below NATO's Article 5 threshold, the EU may be able to make a considerable military commitment.

One of the key motivations behind the push for a European Army is the desire for strategic autonomy. As Macron believes that Europe should be able to act independently in areas of defense and security rather than exclusively relying on the US or NATO. By establishing a European Army, Macron hopes to improve Europe's capacity to manage security crises and protect its interests both domestically and abroad.

Member States of the EU should concentrate on promoting greater cooperation and trust within NATO since they lack the resources or will to pursue a unified strategy. Coordination and leadership abilities are needed to establish an army. EU countries that discuss every political decision are unable to lead in the way that such an organization wants. They may think they are adept at coordinating the activities of their various armed forces, but this is only feasible due to the established American leadership and institutional structure in NATO.

In the past, the US has consistently backed NATO and underlined the value of transatlantic defense cooperation. The US recognizes the EU's attempts to bolster its defenses, but there are conflicting views on whether the EU needs to create an army. The US viewpoint considers how it may affect transatlantic cooperation. The development of a European Army has alarmed the US, which fears that it may duplicate NATO's efforts and compromise the cohesiveness of the alliance. The US underscores NATO's importance as the main framework for European collective defense and encourages sustained cooperation within this framework. According to the US perspective, NATO and the EU must have complementing capacities. The US wants the EU to concentrate on creating capabilities that support and improve NATO's efforts rather than duplicating or competing with them. This strategy's objectives are to effectively use resources and avoid wasting time or effort on unneeded activities. The US has advocated for more burden sharing among NATO members on several occasions. The US claims that creating a European Army might contribute to a more equitable distribution of defense duties in Europe. EU Member States may lessen the load on the US and contribute more fairly to collective security efforts by building their own defense capabilities.

The US still views the creation of a European Army as contentious. The US emphasizes the need of sustaining transatlantic unity, ensuring that capabilities are complimentary, and supporting burden sharing within the boundaries of the present NATO structure while accepting the EU's desire for greater military capabilities. The US viewpoint underscores how crucial it is for NATO and the EU to keep coordinating and cooperating to successfully solve common security problems.

A few of the terms that European authorities frequently use to describe their military strategy have affected this debate. The use of terms like strategic autonomy, European Army, and sovereignty runs the danger of leading some American officials to believe that new EU military activities are an effort to downplay the importance of NATO in ensuring European security or are only a response to Trump. Because the concept of strategic autonomy fits into a political narrative of unappreciative Europeans trying to separate themselves from the US.

EU Member States have claimed that they do not wish to relinquish their military sovereignty for more than 70 years to undertake haphazard integration programs. By offering military assistance, the US deceived European politicians into believing they were secure and made the job of building a European Army appear impossible. The possibility of a unified European front has been hidden by the belief that North American and European foreign security objectives are mutually incompatible. The problem of greater military unity must be prioritized politically for the continent if Europe is to have a bright future.

If the dream of European Army comes true it is supposed that Europe would finally be able to defend itself successfully without seeking outside aid with a united military. There are several justifications for and ways to integrating the military; all that is required is political will. The issue arises because a European Army will be a specialized force protecting specific European interests but here an important question arises: what are the interests of Europe and who defines them?

Extended Abstract

It's important to keep in mind that the CSDP has considerably expanded the likelihood of greater European independence in foreign policy and, consequently, defense, even though its tools did not correspond to a permanent army. The CSDP agreement set the stage for several further developments, such as the requirement for quick-reaction forces and transnational EU Battlegroups supervised by the European Defense Agency (EDA), which was established in 2004. In addition to giving EU-led military operations access to NATO resources and planning expertise, the Berlin Plus Agreement stressed ESDP's objective of once again concluding the existing transatlantic security framework.

These have been the EU's defense strategies ever since the CSDP was established. Controlling expectations is also essential. Both the EU and NATO have made significant defense commitments in the past with a lot of passion, only for those promises to cease quietly without having any real impact. There is good cause for society's broad suspicion about PESCO, yet another defense initiative. However, some people could have inflated hopes or be overexcited. Through PESCO and the EDF, it will take some time before the Member States significantly increase their military prowess and achieve a high level of strategic autonomy.

A new security and defense effort known as ESS was launched at the start of the 2000s. A flexible framework that directs the EU's approach to security and defense is known as the Security Strategy (ESS). It confronts dangers from both within and beyond and places a high emphasis on autonomy and collaboration. A variety of strategic papers have helped the EU's security strategy change over time. These include the Security Strategy in 2003, the Global Strategy in 2016 and the Strategic Compass (SC) in 2022. Because they place such a heavy focus on issues like crisis management, regional stability, and citizen protection, these papers have played a crucial role in determining the security and defense strategy of the EU. In addition to combating external threats, the EU's security policy highlights the significance of internal security and the relationship between internal and exterior components of security. The capacity of the EU to determine its own objectives for foreign policy, security, and defense is referred to as strategic autonomy, a key concept in the EU's security strategy. The idea of European Army gained popularity in the 2000s for a variety of reasons. It is important to ask the question that; despite the several initiatives in security and defense what the reason was to dream about a European Army and also what the actual motivation behind that idea is. An important turning point in the political development of Europe was seen as the perforation of national states by immigration, integration, and trade, necessitating the need for improved security and defense capabilities.

Some contend that a European Army may improve the security and military capabilities of European nations, while others argue that the idea is unachievable and even a waste of time. Regarding threat perceptions, capabilities, and the identification of a common hierarchy of security challenges, there exist impediments and differences across European countries. Also raised are worries about the impact on NATO and the transatlantic relationship. The US has continuously endorsed NATO and emphasized the need of transatlantic defense cooperation in the past. The US acknowledges the EU's efforts to strengthen its defenses, but there are differing opinions on whether the EU should build an army. According to the US perspective, it may have an impact on transatlantic collaboration. The creation of a European Army has disturbed the US, which is concerned that it may duplicate NATO's efforts and jeopardize the alliance's cohesion. The US emphasizes NATO's significance as the primary structure for European collective defense and supports continued cooperation within this structure. NATO and the EU must have complementary capabilities, in the US's view.

A European Army has progressively gained momentum with France and Germany emerging as its top proponents. Both countries are interested in promoting strategic autonomy, reducing reliance on outside sources, and enhancing defense cooperation among EU Member States. The aim to improve defense cooperation among EU Member States is one of the main reasons France and Germany want a European Army. Both nations hope to handle their common security issues with increased interoperability, effectiveness, and cost-efficiency by creating a joint military force. The EU's military system would be more effective and cohesive with improved coordination, joint training, and the pooling of resources and capabilities made available by a European Army. The need for a European Army in the 2000s was influenced by changing geopolitical circumstances, shifting social dynamics, and the requirement for a European security system. It's likely that since NATO was founded, European countries have depended too heavily on the US for their own security.

There has been a lot of debate and analysis around the reasons for and against the formation of a European Army. Numerous parties have expressed interest in and influence over the notion of a European Army. Studies have shown that when an action is thought to occur in the far future, factors in favor of it tend to become more prominent, whereas factors in opposition to it tend to become more obvious when it is perceived to occur soon. The arguments in favor of and against the creation of a European Army have received much discussion and examination. These are some of the questions that we aim to address: Why is the notion of a European Army being researched so thoroughly? Is creating such an army a feasible objective or not? What are the advantages, disadvantages, and difficulties in accomplishing it? Who supports and opposes establishing an army in Europe?

We shall attempt to analyze the historical context of the EU's military ambitions in this article. Second, we aim to assess the present discussions around the European Army. While doing this, we'll also try to explain some of the "pros" and "cons" of the desire to build a European Army as well as some problematic areas. Additionally, perspectives and motivations of France, Germany, and the US considering the creation of a European Army will be assessed.

References

- Andersson, J. J. (2015). European defense collaboration Back to the future. *Institute for Security Studies: European Union*, Brief No. 19. http://www.iss. europa.eu/publications/detail/article/europeandefense-collaboration-back-to-the-future/
- Angelucci, D., Isernia, P. (2019). Politicization and security policy: parties, voters and The European Common Security and Defense Policy. *European Union Politics*, 1(21), 64-86. https://doi.org/10.1177/14651165 19851193
- Atlamazoglou, C.& Moyer, J. C. (2022). A Strategic Compass: The European Union expands its toolbox. https://www.wilsoncenter.org/article/strategiccompass-european-union-expands-its-toolbox
- Avezou, M. (2021). Looking towards a European Army: a once impossible idea becomes a growing necessity. https://natoassociation.ca/looking-towards-aeuropean-army-a-once-impossible-idea-becomes-agrowing-necessity/
- Baykara, S. T. (2021). From ESDP to today's new initiatives: Does neofunctionalism work? *Ekonomi Politika ve Finans Araştırmaları Dergisi*, 6(1), 201-215. DOI: 10.30784/epfad.852018
- BBC News, May 9, 1999, http://news.bbc.co.uk/2/hi/ europe /339209.stm
- Biscop, S. (2012). The UK and European defense: leading or leaving? *International Affairs*, 88 (6), 1297-1313.
- Biscop, S. (2018). PESCO, Strategic autonomy, and ambition. *Sicherheit und Frieden (S+F) / Security and Peace*, 36(4), 191-195. https://www.jstor.org/stable /10.2307/26630051
- Bochert, F. (2020). Europe's old beacon of new hope: The overdue creation of a European Army. https://hir.harvard.edu/european-army-nato/
- Brânda, O. (2022). The Strategic Compass A strategic boost of confidence in European Security. *RMT*, 4, 236-247. https://doi.org/10.55535/rmt.2022.4.13
- Btrattberg, E. and Valasek, T. (2019). EU defense cooperation: Progress amid transatlantic concerns, *Carnegie Endowment for International Peace*, 1-36. https://www.jstor.org/stable/resrep20973
- Braw, E. (2022). Is an EU army coming? https://foreignpolicy.com/2022/03/20/is-an-euarmy-coming/
- Csernatoni, R. (2023). Is Ukraine a game changer for European defense? https://carnegieeurope.eu /strategiceurope/89832

- Chryssochoou, D. N., Tsinisizelis, M. J., Stavridis, S., & Ifantis, K. (2018). Institutional imperatives of system change. *Theory and Reform in the European Union*. https://doi.org/10.7765/9781526137920.00013
- Cross, M. K. D., Karolewski, I. P. (2021). European-Russian power relations in turbulent times. https://doi.org/10.3998/mpub.10202357
- Ciupiński, A., KUŚ, M. (2023). Contemporary trends in development of the European defense capabilities in the light of CARD-22. *PTU*, 1(163), 57-73. https://doi.org/10.5604/01.3001.0053.5918
- Dedman, M., Fleay, C. (1992). Britain and the European Army, *History Today*, 42, 11-14. http://allianceprimo.hosted.exlibrisgroup.com/UW:all:TN_gale_ofa 12089315
- Dempsy, J. (2023). The War in Ukraine Is About Europe's Future. https://carnegieeurope.eu/strategiceurope /90444
- Dobbs, M. (1983). French leaders Revive Vision of European Security System. Washington Post, December 27, 1983. December 27, 1983. https://www.washingtonpost.com /archive/politics/ 1983/12/27/french-leaders-revive-vision-of-european -security-system/b09f96b7-346a-4227-a8e6-75ffcec 412c2/
- Edward, C. (2009). After 43 Years, France to rejoin NATO as full member. *Washington Post Foreign Service*. March 12, 2009. https://www.washingtonpost.com /wp-dyn/ content/article/2009/03/11/AR2009031100 547.html
- Ehl, M. (2023). Is Ukraine a Game Changer for European Defense? https://carnegieeurope.eu/strategiceurope /89832
- Fiott, D., Missiroli, A., and Tardy, T. (2017) Permanent structured cooperation: what's in a name? *European Union Institute for Security Studies (EUISS)*. http://www.jstor.com/stable/resrep17440.1
- Gülmez, D. B., Gülmez, S. B. (2020). Towards an autonomous European defense? A comparative analysis of French, Polish and German perspectives in the post-Brexit era. *Global Affairs*, 2(6), 185-202. https://doi.org/10.1080/23340460.2020.1776628
- Gordon, P. (2000). Their own army? Making European defense work, *Foreign Affairs*, Vol. 79, No. 4 (Jul. Aug. 2000), 12-17.
- Grant, C. (1999). European defense post-Kosovo. *Centre* for European Reform: Working papers, 1-13. http://www.cer.org.uk/sites/default/files/publication s/attachments/pdf/2012/cerwp3-5671.pdf
- Heisbourg, F. (2023). Is Ukraine a game changer for European defense? https://carnegieeurope.eu/ strategiceurope/89832
- Hellmann, G., Baumann, R., Bösche, M., Herborth, B., & Wagner, W. (2005). De-Europeanization by default? Germany's EU policy in defense and asylum. *Foreign Policy Analysis*, 1(1), 143–164. http://www.jstor.org /stable/24907284

- https://www.cvce.eu/en/education/unit-content/-/unit/803b2430-7d1c-4e7b-9101-47415702fc8e/ 6d9db05c-1e8c-487a-a6bc-ff25cf1681e0
- Keohane, D. (2016). Samuel Beckett's European Army, *Carnegie Europe*, https://carnegieeurope.eu/ strategiceurope/66456
- Kneucker, R. (1999). Evaluation in management and policy making at European level. *Scientometrics*, 45(3), 355-357. https://doi.org/10.1007/bf02457589
- Lak, M. (2018). How to deal with the German menace? West German rearmament, proposals for a common European Army, and the Dutch and West German response, 1949-1955. *On-Line Journal Modelling the New Europe*, (28), 139-159. https://doi.org /10.24193/ojmne.2018.28.08
- Leuprecht, C., Hamilton, R. (2021). New opportunities in common security and defense policy: Joining Pesco. *ANZJES*, 3(11), 78-96. https://doi.org/10.30722 /anzjes. vol11.iss3.15109
- Le Gleut, R. & Conway-Mouret, H. (2019). Information Report No:626, Senate Extraordinary Session of 2018-2019. https://www.senat.fr/rap/r18-626-2/r18-626-21.pdf
- Meijer, H., & Wyss, M. (2019). Upside down: reframing European defense studies. *Cooperation and Conflict*, 54(3), 378–406. https://doi.org/10.1177/00108367 18790606
- Mix, D. (2013). The European Union: foreign and security policy. *Congressional Research Service*, 1-29. https://www.fas.org/sgp/crs/row/R41959.pdf
- Nováky, N. (2018). The EU's permanent structured cooperation in defense: keeping sleeping beauty from snoozing. *European View*, 1(17), 97-104. https://doi.org/10.1177/1781685818764813
- Oproiu, M. (2012). The European Union as a conflict manager: Perspectives after the Lisbon Treaty, *Studia Diplomatica*, 65(4),39-54. https://www.jstor.org /stable/ 10.2307 /26531553
- Oxford Analytica (2016). Central European defense cooperation will increase, *Expert Briefings*. https://doi.org/10.1108/OXAN-DB213573
- Özkızılcık, Ö. (2021). A 'European military' and defense autonomy are pipe dreams,
- https://www.trtworld.com/opinion/a-european-militaryand-defense-autonomy-are-pipe-dreams-49837
- "Prodi calls for Euro army," BBC News, May 9, 1999, accessed September 13, 2015,
- http://news.bbc.co.uk/2/hi/europe/339209.stm
- Przetacznik, J. (2022). The EU's foreign, security and defense policy after Russia's invasion of Ukraine.
- https://www.europarl.europa.eu/RegData/etudes/ATAG /2022/729456/EPRS_ATA(2022)729456_EN.pdf
- Rutten, M. (2001). From St. Malo to Nice, European defense: Core documents. *Challiot Paper* 47. *Institute for Security Studies WEU*, 1-239. https://www.bits.de/CESD-PA/chai47.pdf
- Samadashvili, S. (2016). Good or bad neighbors: The main European security challenge. https://www.martens centre .eu/sites/default/files/publication-files/europe -security-challenge.pdf.

- Speech of the President of the Republic Emmanuel Macron on the Defense and Deterrence Strategy (07 Feb. 20). https://www.diplomatie.gouv.fr/en/frenchforeign-policy/security-dis-armament-and-nonproliferation/news/news-about-defense-andsecurity/article/speech-of-the-presi-dent-of-therepublic-emmanuel-macron-on-the-defense-and
- Stadnik, S. (2016). A comparative historical study of the development of a European Army. https://www.e-ir.info/pdf/63596
- Stein, E., & Carreau, D. (1968). Law and peaceful change in a subsystem: "Withdrawal" of France from the North Atlantic Treaty Organization. *The American Journal of International Law*, 62(3), 577–640. https://doi.org/10.2307/2197283
- Tulun, T. E. (2022). EU Strategic Compass for security and defense shows the wrong course at the worst possible time. https://doi.org/10.31219/osf.io/nzpw7
- Telesca, E. and Caliva, S. (2018) European Army: a problematic dream?
- https://www.vocaleurope.eu/wpcontent/uploads/COMMENTARY-ON-EU-ARMY-FINAL.pdf

- Wessel, R.A. (2001). The EU as a black widow: devouring the WEU to give birth to a European Security and Defense Policy, Vincent Kronenberger (Ed.), *The European Union and the international legal order: Discord or harmony*, Den Haag, 405- 434.
- Willa, R. (2019). Common defense of EU countries: Reality or fantasy? *Athenaeum Polskie Studia Politologiczne*, 64, 45-61. https://doi.org/10.15804/athena.2019.64. 03
- Winn, N. (2003). Towards a common European security and defense policy? The debate on NATO, the European Army and transatlantic security. *Geopolitics*, 8(2), 47-68.
- Yakoviyk, I. V., Tragniuk O. Y., Boichuk D. S. (2020). Strategic autonomy of the European Union: on the way to European sovereignty in defense? *Problems of Legality*, 149, 223-242. https://doi.org/10.21564/ 2414-990x.149.199902
- Zięba, R. (2022). France's security strategy for the 21st century. *Vestnik SPbSU. International relations*, 1(15), 3-14. https://doi.org/10.21638/spbu06.2022.101



A Study on the Impact of Agile Leadership and Innovative Behaviors on Psychological Empowerment

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Research Article	ABSTRACT
	In this study, the effects of agile leadership and innovative behaviors on psychological empowerment and its
History	dimensions were examined. "Agile Leadership Scale", "Innovative Behaviors Scale" and "Psychological
Received: 15/05/2023 Accepted: 13/07/2023	Empowerment Scale" were used in the questionnaire form used in the research. The data of the research were obtained from 410 employees in the information and communication sector operating throughout Türkiye. Parametric test techniques were used for the analysis of the data, the relationship between the scale scores was examined by Pearson correlation and the effect was examined by regression analysis. Factor analysis was applied to the scales used in the study. As a result of the factor analysis of the agile leadership scale, it was determined that the scale consisted of 4 sub-dimensions, and items 1, 21, and 27 were not included in the analysis due to
Jel Codes: M1, M12, M54.M52	overlap. As a result of the factor analysis of the innovative behavior scale, it was determined that the scale consisted of one dimension, and the 12th item was not included in the analysis because the factor load was below 0.300. As a result of the factor analysis of the psychological empowerment scale, it was determined that the scale consisted of 3 sub-dimensions. According to the results of the analysis, it has been determined that agile leadership and innovative behaviors have an effect on psychological empowerment and on the sub-dimensions of psychological empowerment. The research generally emphasizes the importance of agile leadership and innovative behavior on employees' perceptions of psychological empowerment. In order to achieve success in leadership, it is necessary to implement approaches that will show that employees and their work are important in order to develop agile features, to follow the developments in technology, communication and information systems to increase innovative behaviors, and to increase psychological empowerment.

Keywords: Agile Leadership, Innovative Behaviors, Psychological Empowerment

Çevik Liderlik ve Yenilikçi Davranışların Psikolojik Güçlenmeye Etkisi Üzerine Bir Araştırma

Süreç Geliş: 15/05/2023 Kabul: 13/07/2023	ÖZ Bu araştırmada çevik liderlik ve yenilikçi davranışların psikolojik güçlendirmeye ve boyutlarına olan etkisi incelenmiştir. Araştırmada kullanılan anket formunda, "Çevik Liderlik Ölçeği", "Yenilikçi Davranışlar Ölçeği" ve "Psikolojik güçlendirme Ölçeği" kullanılmıştır. Araştırmanın verileri, Türkiye genelinde faaliyet gösteren bilgi ve iletişim sektöründeki 410 çalışandan elde edilmiştir. Verilerin analizi için parametrik olan test teknikleri kullanılmış, ölçek puanları arasındaki ilişki Pearson korelasyon, etki ise regresyon analizi ile incelenmiştir. Araştırmada kullanılan ölçekler için faktör analizi uygulanmıştır. Çevik liderlik ölçeğinin faktör analizi sonucunda	
Jel Kodları: M1, M12, M54.M52 Copyright	ölçeği 4 alt boyuttan oluştuğu belirlenmiş, binişiklik nedeniyle, çevik indenik olçeginin haktor analızı sonucunda ölçeği 4 alt boyuttan oluştuğu belirlenmiş, binişiklik nedeniyle, 21 ve 27. madde analize dahil edilmemiştir. Yenilikçi davranış ölçeğinin faktör analizi sonucunda ölçeğin tek boyuttan oluştuğu belirlenmiş, faktör yükünün 0,300 altı olması nedeniyle 12. madde analize dahil edilmemiştir. Psikolojik güçlendirme ölçeğinin faktör analizi sonucunda ölçeği 3 alt boyuttan oluştuğu belirlenmiştir. Analiz sonuçlarına göre, çevik liderlik ve yenilikçi davranışların psikolojik güçlendirme üzerinde ve psikolojik güçlendirmenin alt boyutları üzerinde etkisinin olduğu tespit edilmiştir. Araştırma genel olarak çalışanların psikolojik güçlendirme algıları üzerinde çevik liderliğin ve yenilikçi davranışın önemini vurgulamaktadır. Liderlikte başarıyı yakalamak için çevik özelliklerin geliştirilmesi, yenilikçi davranışları artırmak için teknoloji, iletişim ve bilişim sistemlerindeki gelişmelerin takip edilmesi ve psikolojik güçlendirmenin arttırılması için çalışanların ve yaptıkları işin önemli olduğunu gösterecek yaklaşımların hayata geçirilmesi gerekmektedir.	
ि ए छे This work is licensed under Creative Commons Attribution 4.0 International License	Anahtar Kelimeler: Çevik Liderlik, Yenilikçi Davranışlar, Psikolojik Güçlendirme, Çeviklik, Yenilikçilik	
📲 vildanbayram@aydin.edu.tr 🔟 https://orcid.org/0000-0001-7526-6485 🏾 🕲 mesutoztirak@esenyurt.edu.tr 🕼 https://orcid.org/0000-0003-4828-7293		
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Introduction

Human resources are one of the most important resources that will accelerate businesses when used correctly and appropriately. The ability of businesses to use their human resources effectively and to keep them in the business, as well as finding new human resources, depends on giving importance and value to this resource. The fair and equal treatment of employees in situations such as remuneration, promotion, and rewards will improve their motivation and loyalty to the institution. Regular training to reveal and develop the talents of the employees will increase efficiency and productivity. In addition, employees' openness to innovative behaviors will ensure organizational success. Organizational management, providing opportunities for employees to express their innovative behavior and innovative ideas, and creating new opportunities for employees will strengthen them psychologically.

Psychological empowerment can be expressed as the intrinsic motivation of employees. Employees with high perceptions of psychological empowerment perform their duties and activities effectively and efficiently, motivated. Psychological empowerment is a concept with multiple effects. It affects organizational performance, employee performance, participation, organizational commitment, and the ability to operate freely (Spreitzer, 1995; Thomas & Velthouse, 1990). In this context, it is seen that psychological empowerment is important for organizations. In addition, psychological empowerment significantly affects innovative work behavior (Tekin & Akgemci, 2019).

With the introduction of computers and the Internet into our lives in the 1990s, our working life and personal life have undergone a great transformation. Organizations that adapt quickly to this transformation have gained a great competitive advantage. They had the chance to grow, to open up to international markets, to compete with world brands and to catch up with the era. Organizations that try to adapt to rapidly developing internal and external environmental conditions need agile leaders who have the courage and competence to realize this change. Therefore, agile leadership and innovative behavior are two important factors that contribute to the success of organizations in today's rapidly changing business environment.

In the study, the effects of agile leadership and innovative behaviors on psychological empowerment and its dimensions were examined. "Agile Leadership Scale", "Innovative Behavior Scale" and "Psychological Empowerment Scale" were used in the questionnaire form used in the research. Factor analysis was applied for the scales. The sample of the study consisted of 410 employees in the information and communication sector throughout Türkiye. The obtained data were analyzed by using the SPSS 21.0 package program, the relationship between the scale scores was analyzed by Pearson correlation and the effect was analyzed by regression analysis. As a result of the analysis of the collected data, the effect of agile leadership and innovative behaviors on psychological empowerment and the sub-dimensions of psychological empowerment were tried to be determined. Then, the results of the analysis were evaluated, and in the conclusion part, the necessity of agile leadership and the importance of adapting to innovative behaviors and suggestions for business life in order to increase psychological empowerment were presented. When the literature was examined, no study was found related to the research subject. In this context, it is thought that the study will make an important contribution to the literature.

Conceptual Framework

Agile Leadership

In today's volatile and highly competitive business environment, organizations need to be agile and innovative to stay ahead of the competition. Leaders must have the ability to navigate change and uncertainty and inspire their teams to be creative and adaptable. It can be said that the concept of agile leadership is a key factor in psychological empowerment, employee motivation, commitment, and performance.

An agile leader is one who can rapidly change the innovation and implementation of ideas and content in complex, uncertain environments and changing conditions (Joiner & Josephs, 2007). This concept emerged from the agile management approach that emerged in the software development industry and has since been adopted by organizations in various sectors (Denning, 2018). An agile leader is a leader who sets guiding principles, develops strategies and has the ability to create mechanisms that will ensure a smooth transition to organizational agility (Attar & Abdul- Kareem, 2020).

Agile leadership includes six basic dimensions: Resultoriented, team-oriented, change-oriented, competent, flexible and fast (Akkaya & Bayram, 2021; Akkaya et al., 2020). The agile leader can quickly implement the necessary directions by focusing on the conclusion of the project he is working on. Being results-oriented is helping a leader to monitor and evaluate activities, follow up projects, programs and policies at hand, and demonstrate their effects, by creating a common understanding among all stakeholders about the organization's goals, values and priorities (Kusek & Rist, 2010). Being team-oriented includes the ability to anticipate and respond to the needs and expectations of all employees and various stakeholders, including customers and shareholders. For this purpose, the agile leader inspires, willingly brings together and motivates his teams (Bass, 2019). It tries to internalize the agile organizational culture by increasing the collective performance. Thus, it enables teams to manage themselves (Pieterse et al., 2019). Being focused on change includes the ability to adapt to innovations. It is a change and transformation-oriented style of acting by developing the ability of companies to compete in uncertain environmental conditions (Hayward, 2018). Being competent includes the ability to come up with new

ideas and solutions to problems and apply them. Agile leader closely follows the technological developments and competent features in integrating has these developments into his own company. Because the degree of digital literacy and technological agility is high (Özdemir & Çetin, 2019). Being flexible means having the foresight to achieve success, constantly redesigning the way we work. It is being flexible to differences between groups and changing situations (Parker et al., 2015, Henson, 2015). Finally, to be fast is to respond to expectations as quickly as possible. This enables businesses to adapt quickly to innovation processes. It prioritizes process improvement, is change-oriented and has the ability to respond quickly (Rigby et al., 2016). Thus, the agile leader can develop the ability to reflect on his own assumptions and biases and adjust his behavior accordingly.

Studies have shown that agile leadership has a positive relationship with organizational performance (Joiner & Josephs, 2007; Liedtka, 2015). Leaders who are agile can navigate change and uncertainty better, identify opportunities for innovation, and inspire their teams to be creative and adaptable.

Innovative Behavior

Organizations operating in rapidly changing economic and technological conditions need to adopt innovative approaches in order to survive and gain a competitive advantage over other competitors. Organizations that are open to innovative ideas, studies, and all kinds of innovative strategies will adapt more easily to new environmental conditions. Organizational structures that give employees the opportunity to develop their creativity and give importance to their thoughts will include innovative behaviors and ideas in their work plans (Köhler et al., 2010; Gebert et al., 2006).

Innovative behavior can be defined as a strategic activity that gives or loses competitive advantage to organizations (Von Hippel, 1988). In another definition, innovative behavior refers to the process of revealing new applications in solving problems (Ardts et al., 2010). In this process, first the problem is defined, various solutions are produced, and then the chosen solution is applied by choosing among the solutions (Carmeli et al., 2006). Thus, it becomes possible to implement new ideas and new solutions.

Innovation is the main driver of organizational success and innovative behavior refers to actions and behaviors that lead to the creation of new ideas, products or processes (Scott & Bruce, 1994). Innovative behavior is not limited to a specific role or function within the organization and can be exhibited by employees at all levels. Innovative behavior consists of seven dimensions: idea generation, idea seeking, idea communication, implementation activities, including others, overcoming obstacles and innovative outputs (Pala & Turan, 2020). Internally motivated employees are more likely to engage in innovative behaviors because they are driven by the desire to learn and grow (Amabile, 1998). Creativity that develops as a result of idea seeking and idea communication is an important factor in innovative behavior as it includes the ability to produce new and original ideas (Shalley & Perry-Smith, 2008). Initiating implementation by involving others is a situation that will strengthen and ensure success in innovative activities. If employees have control over their work, and have the opportunity to try their ideas and take risks, these will positively affect innovative behavior (Baer & Frese, 2003). Thus, it will gain the power to overcome obstacles and innovative outputs will be realized (Pala & Turan, 2020). Employees will be able to develop their innovative behaviors in a positive way by providing social support, feedback and encouragement from other organizational members and leaders.

Studies have shown that innovative behavior is positively associated with several variables, including job satisfaction, creativity, and organizational performance (Scott & Bruce, 1994; West & Sacremento, 2012).

Psychological Empowerment

Conger and Kanungo, in their study in 1988, investigated the strengthening process for the first time and tried to describe this process. Later, Thomas and Velthouse (1990), Spreitzer (1995), Laschinger et al. (2004) and O'Brien (2010) demonstrated the importance of the level of psychological empowerment of employees with their studies on psychological empowerment, making it an important place in the literature. Spreitzer developed a psychological empowerment scale with his study in 1995. Psychological empowerment refers to the degree to which employees perceive that they have control over their work and can affect organizational results (Spreitzer, 1995). This degree of perception depends on the psychological interpretation of the level of empowerment by employees (Laschinger et al., 2004; Thomas & Velthouse, 1990). Psychological empowerment is based on the assumption that employees who feel empowered are more motivated, engaged, and productive than those who do not.

Psychological empowerment was examined in four dimensions (Thomas & Velthouse, 1990; Spreitzer, 1995; Laschinger, et al., 2004; O'Brien, 2010; Uner & Turan, 2010): Meaning, competence, autonomy, and impact. Meaning refers to the degree to which employees find their work meaningful and compatible with their personal values and goals. Competence refers to the degree to which employees feel competent and capable in their jobs. Autonomy, in other words, refers to the degree of self-determination, the degree to which employees feel they have control over their jobs and can make decisions that affect results. Finally, impact refers to the degree to which employees feel that their work has a meaningful impact on the organization and its stakeholders.

Studies have shown that psychological empowerment is positively associated with various variables, including job satisfaction, organizational commitment, and performance (Spreitzer, 1995; Ahearne et al., 2014). Empowered employees are more likely to be motivated and engaged in their work, leading to higher levels of performance and commitment to the organization.

The Relationship Between Agile Leadership, Innovative Behavior and Psychological Empowerment

Agile leadership and innovative behavior are two important factors that contribute to psychological empowerment in employees. Agile leaders are more successful at creating a culture of innovation and compliance within their organizations, which can lead to greater employee engagement and empowerment. Similarly, employees who exhibit innovative behavior are more likely to feel empowered because they can influence results and contribute to the success of the organization. When the literature is examined, it is seen that servant leadership has a positive effect on psychological empowerment and organizational commitment (Nal et al., 2020), there is a significant and positive relationship between paternalistic leadership and psychological empowerment (Turgut and Sağlam Arı, 2021), psychological empowerment significantly affects innovative work behavior. (Tekin & Akgemci, 2019). It is important to what extent agile leadership and innovative behaviors affect the four sub-dimensions of psychological empowerment. Because psychological empowerment is a factor that will directly affect the commitment, motivation and performance of employees. If it can be determined which of the sub-dimensions are affected by agile leadership and innovative behaviors, it will be easier for the organization and managers to empower employees psychologically. In this case, it becomes possible to establish the following hypotheses:

H1: Agile leadership sub-dimensions and innovative behaviors have an effect on the sub-dimensions of psychological empowerment.

H2: Agile leadership sub-dimensions and innovative behaviors have an effect on psychological empowerment.

Studies have shown that there is a positive relationship between agile leadership and innovative behavior (Liedtka, 2015; Akkaya, 2020). Agile leaders are more successful at creating a culture that fosters creativity and innovation among employees, which can lead to increased innovative behavior. Similarly, employees who feel empowered are more likely to engage in innovative behaviors because they are more motivated and engaged in their work.

There is also evidence to suggest that both agile leadership and innovative behavior are positively associated with psychological empowerment. A study by Turan (2021) found that agile leadership is positively related to the performance level of employees. Similarly, Ahearne et al. (2014) found that innovative behavior was positively associated with psychological empowerment and that this relationship was mediated by employees' perceptions of autonomy and influence. Research shows that the leadership performance of managers improves positively (Joiner & Josephs, 2007; Liedtka, 2015). Leaders who are agile can navigate better in conditions of uncertainty and change, seize opportunities for innovation, and inspire their followers to engage in creative and adaptive activities. Therefore, the following hypothesis can be established:

H3: Agile leadership and innovative behaviors have an effect on psychological empowerment.

Methodology

Purpose and importance of the research

The main problem of this research, "Does agile leadership and innovative behaviors affect the psychological empowerment of employees?" has been determined. The study is important because there is no study on agile leadership, innovative behaviors, and psychological capital in the literature. There are many organizational, managerial, or individual factors that affect the psychological empowerment of employees. In the study, it was tried to determine the effect of agile leadership and innovative behaviors on the subdimensions of psychological empowerment, meaning, competence, autonomy, and impact. Thus, it was tried to fill the gap in the literature on this subject and to increase the level of psychological empowerment of the employees. This study, which emphasizes that organizations and organizational managers trying to adapt to new and changing environmental conditions every day, should be agile and fast while adapting to innovation, makes a special contribution to the literature.

Research Model

In this study, it is assumed that agile leadership and innovative behaviors have an effect on psychological empowerment. The research model of the effect of agile leadership and innovative behaviors of information and communication sector employees across Türkiye on psychological empowerment is shown in Figure 1 below.


Universe and Sample

The population of the research consists of 258 746 people working in the information and communication sector operating throughout Türkiye (TUIK, 2022). In the study, 410 working people were reached between 01.01.2023 and 30.03.2023 using the convenience sampling method. 410 samples are considered sufficient for the study.

Data Collection Tools of the Research

The guestionnaire form used in the research consists of 4 parts. Demographic characteristics were used in the first part, "Agile Leadership Scale" in the second part, "Innovative Behaviors Scale" in the third part, and "Psychological Empowerment Scale" in the fourth part. A 5-point Likert scale (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree) was used in the questionnaire. A 5-question form was created, including demographic information, such as gender, age. educational status, status, and seniority in the workplace. In the second part of the questionnaire, Akkaya et al. (2020) "Agile Leadership scale" (32 items) was used. The sub-dimensions of the scale are being result oriented (8 items), being competent (5 items), being flexible (5 items), being team oriented (8 items), being fast (3 items) and being change oriented (3 items). It consists of six subdimensions. It was seen that the Cronbach Alpha value of the Agile leadership scale was 0.967, and it was understood that the measurement tool was highly reliable.

In the third part of the questionnaire, the "Innovative Behavior scale" developed by Lukes and Stephan (2017) and adapted by Pala and Turan (2020) was used. The scale consists of seven dimensions: idea generation, idea seeking, idea communication, implementation activities, involving others, overcoming obstacles, and innovative outputs. In the research, four sub-dimensions of the scale were used: idea generation (3 items), idea seeking (3 items), idea communication (4 items) and implementation activities (3 items). The Cronbach Alpha coefficient was found to be 0.935, it was found to be at an acceptable level and it was understood that the scale was reliable.

In the fourth part of the questionnaire, the "Perception of Psychological Empowerment Scale" developed by Spreitzer (1995) and adapted by Uner and Turan (2010) was used to measure psychological empowerment. The scale consists of four dimensions and 12 items: meaning, competence, autonomy (self-determination) and impact. The scale contains three items for each of the four dimensions. The Cronbach Alpha value was found to be 0.84 and it was found to be acceptable and reliable.

Findings

In the study, factor analysis was applied for the scales. Afterwards, the scale scores were calculated and the kurtosis and skewness coefficients were examined to determine the conformity of the scores to the normal distribution. The kurtosis and skewness values obtained from the scales are found to be between +3 and -3 for normal distribution (Groeneveld and Meeden, 1984; Moors, 1986; Hopkins and Weeks, 1990; De Carlo, 1997). Since normality was ensured, parametric test techniques were used, the relationship between the scale scores was analyzed with the Pearson correlation test, and the effect was examined with regression analysis.

Validity and Reliability Analysis

Reliability Analysis

Cronbach's alpha coefficient gives the reliability level of the scale. The coefficient ranges from 0 to 1. Depending on the alpha (α) coefficient, the reliability of the scale is interpreted as follows (Nunnally, 1967: 248).

- If $.00 \le \alpha < .40$ the scale is not reliable,
- If $.40 \le \alpha < .60$ the reliability of the scale is low,
- If $.60 \le \alpha < .80$ the scale is quite reliable,
- If $.80 \le \alpha < 1,00$ the scale is highly reliable.

The Cronbach Alpha value for the agile leadership scale was calculated as 0,961, the Cronbach Alpha value for the innovative behavior scale was calculated as 0,718, and the Cronbach Alpha value for the psychological empowerment scale was calculated as 0,890. According to these results, it has been determined that the scales are quite reliable. The analysis of demographic variables is presented in Table 1 below.

According to the analysis results of the demographic variables seen in Table 1, 53,4% of the participants who answered the questionnaire were female and 46,6% were male. The proportion of those aged 18-30 years is 64,1%; The proportion of those aged 31-40 years is 12,0%; The rate of those aged 41 and over is 23,9%; the rate of those who graduated from high school/associate degree is 32,2%; The rate of those with a bachelor's degree is 44,4%; The rate of graduates is 23,4%. The ratio of managers/supervisors is 27,3%; the rate of civil servants is 67,3%; The rate of senior managers is 5,4%. The rate of employees working in this workplace for 1-5 years is 61,0%; The rate of employees working for 6-10 years is 13,7%; The rate of employees working for 11-15 years is 13,2%; The rate of employees working for 16-20 years is 4,6%; The rate of employees for more than 20 years is 7,6%.

Explanatory Factor Analysis

Exploratory factor analysis was performed to determine the construct validity of the scales used in the study. KMO and Bartlett tests were performed in order to understand whether the scale was suitable for factor analysis. While the KMO coefficient is calculated to test the sample size, the normal distribution condition is examined with the Bartlett test. In this context, the KMO test measurement result should be .50 and above, and the Bartlett sphericity test result should be statistically significant (Jeong, 2004: 70). In the factor analysis process, factor load values were examined in the process of assigning or removing scale items from the scale. The agile leadership scale factor analysis results are shown in Table 2 below.

Çizelge 1. Demografik değişkenler *Table 1. Demographic variables*

		n	%
Gender	Female	219	53,4
	Male	191	46,6
Age	18-30	263	64,1
	31-40	49	12,0
	41 and over	98	23,9
Educational status	High school/College	132	32,2
	Graduate	182	44,4
	Post- graduate	96	23,4
Your status	Manager/supervisor	112	27,3
	Officer	276	67,3
	Executive	22	5,4
Your seniority in this workplace	1-5 year	250	61,0
	6-10 year	56	13,7
	11-15 year	54	13,2
	16-20 year	19	4,6
	20 and more	31	7,6

Çizelge 2. Çevik liderlik ölçeği faktör analizi sonuçları Table 2. Aaile leadership scale factor analysis results

Dimension	Article	Factor load	Explained rate of variance
	ÇLÖ26	,961	
	ÇLÖ30	,939	
	ÇLÖ29	,934	
	ÇLÖ28	,910	
Dimension 1	ÇLÖ31	,864	46,120
Dimension	ÇLÖ25	,853	40,120
	ÇLÖ24	,851	
	ÇLÖ23	,817	
	ÇLÖ32	,791	
	ÇLÖ22	,680	
	ÇLÖ18	,939	
	ÇLÖ19	,904	
	ÇLÖ15	,881	
	ÇLÖ20	,821	
Dimension 2	ÇLÖ16	,764	18,497
	ÇLÖ14	,759	
	ÇLÖ13	,676	
	ÇLÖ12	,673	
	ÇLÖ17	,665	
	ÇLÖ9	,813	
	ÇLÖ10	,807	
Dimension 3	ÇLÖ8	,789	7,041
	ÇLÖ11	,676	
	ÇLÖ7	,538	
	ÇLÖ2	,836	
	ÇLÖ3	,831	
Dimension 4	ÇLÖ4	,806	5,794
	ÇLÖ5	,585	
	ÇLÖ6	,523	20200,596 p=,000

In the factor analysis for the scale in Table 2, it is seen that the KMO value was calculated as 0,689. Accordingly, the sample size is suitable for factor analysis (KMO>0.500). Within the scope of the Bartlett test, the X2 value was calculated as 20200,596 and was found to be statistically significant (p<0,05). Accordingly, the normal distribution condition was met. According to the results of the KMO and Bartlett test, it was concluded that the data were suitable for factor analysis. As a result of factor analysis, it was determined that the scale consisted of 4 sub-dimensions. Items 1, 21 and 27 were not included in the analysis due to overlap. The innovative behavior scale factor analysis results are given in Table 3 below

Tuble 3. Innovative behavior scale juctor	unuiysis results		
Dimension	Article	Factor load	Explained rate of variance
	YDÖ10	,974	
	YDÖ9	,949	
	YDÖ1	,918	
	YDÖ11	,916	
	YDÖ8	,913	
Innovative Behavior Scale	YDÖ2	,908	72,548
	YDÖ5	,889	
	YDÖ3	,824	
	YDÖ6	,736	
	YDÖ4	,639	
	YDÖ7	,611	
		KMO:0,603 X2	:8181,136 p=,000

Çizelge 3. Yenilikçi davranış ölçeği faktör analizi sonuçları	
Table 3 Innovative behavior scale factor analysis results	

Çizelge 4. Psikolojik güçlendirme ölçeği faktör analizi sonuçları

Table 4. Psychological empowerment scale factor analysis results

Dimension	Article	Factor load	Explained rate of variance
	PGÖ10	,937	
	PGÖ11	,906	
Dimension 1	PGÖ9	,863	45,895
Dimension	PGÖ12	,855	45,895
	PGÖ8	,789	
	PGÖ7	,748	
	PGÖ3	,913	
Dimension 2	PGÖ2	,892	20,866
	PGÖ1	,837	
	PGÖ4	,931	
Dimension 3	PGÖ5	,929	8,800
	PGÖ6	,709	
		KMO:0,8	54 X2:3509,744 p=,000

In the factor analysis performed for the scale in Table 3, the KMO value was calculated as 0,603. Accordingly, the sample size is suitable for factor analysis (KMO>0,500). The X2 value was calculated as 8181,136 within the scope of the Bartlett test and was found to be statistically significant (p<0,05). Accordingly, the normal distribution condition was met. According to the results of the KMO and Bartlett test, it was concluded that the data were suitable for factor analysis. As a result of factor analysis, it was determined that the scale consisted of one dimension. Item 12 was not included in the analysis because the factor load was less than 0,300.

The results of the factor analysis of the psychological empowerment scale are presented in Table 4 below.

In the factor analysis for the scale in Table 4, the KMO value was calculated as 0,854. Accordingly, the sample size is suitable for factor analysis (KMO>0,500). The X2 value was calculated as 3509,744 within the scope of the Bartlett test and was found to be statistically significant (p<0,05). Accordingly, the normal distribution condition was met. According to the results of the KMO and Bartlett test, it was concluded that the data were suitable for factor analysis. As a result of factor analysis, it was determined that the scale consisted of 3 sub-dimensions.

Descriptive statistics of scale scores and normality test are given in Table 5 below.

In Table 6, the results of the Pearson correlation test performed to examine the relationship between

psychological empowerment, agile leadership and innovative behavior are given below.

A moderate positive relationship (r=0,563) between Agile Leadership Dimension1 and Innovative Behavior Scale; A weak positive relationship between the Psychological Empowerment Dimension1 (r=0,154); There is a weak positive correlation (r=0,148) between the Psychological Empowerment Scale.

A weak positive correlation between Agile Leadership Dimension2 and Innovative Behavior Scale (r=0,195); A weak positive relationship between the Psychological Empowerment Dimension1 (r=0,150); There is a weak positive correlation (r=0,127) between the Psychological Empowerment Scale.

A weak positive correlation (r=0,155) between Agile Leadership Dimension3 and Psychological Empowerment Dimension1; There is a weak positive correlation (r=0,146) between the Psychological Empowerment Scale.

A weak positive correlation between Agile Leadership Dimension4 and Psychological Empowerment Dimension1 (r=0,137); There is a weak positive correlation (r=0,137) between the Psychological Empowerment Scale.

A moderate positive correlation between Agile Leadership Scale and Innovative Behavior Scale (r=0,365); A weak positive relationship between the Psychological Empowerment Dimension1 (r=0,191); There was a weak positive correlation (r=0,177) between the Psychological Empowerment Scale.

	n	Minimum	Maximum	Average	SS	Skewness	Kurtosis	Reliability
Agile Leadership Dimension1	410	1,00	5,00	3,63	1,10	-1,010	,295	,964
Agile Leadership Dimension2	410	1,00	5,00	3,46	1,04	-,385	-,809	,945
Agile Leadership Dimension3	410	1,00	5,00	3,61	0,90	-,520	,033	,925
Agile Leadership Dimension4	410	1,00	5,00	3,60	0,95	-,538	-,208	,922
Agile Leadership Scale	410	1,69	5,00	3,57	0,80	-,236	-,614	,957
Innovative Behavior Scale	410	1,64	5,00	3,90	0,78	-1,583	2,522	,953
Psychological Empowerment Dimension1	410	1,00	5,00	3,85	0,96	-,655	-,083	,924
Psychological Empowerment Dimension2	410	2,33	5,00	4,59	0,61	-1,612	2,011	,855
Psychological Empowerment Dimension3	410	2,67	5,00	4,62	0,57	-1,653	2,077	,841
Psychological Empowerment Scale	410	2,08	5,00	4,23	0,62	-,703	,078	,890

Çizelge 5. Ölçek puanlarına ait betimsel istatistikler ve normallik testi
Table 5. Descriptive statistics of scale scores and normality test

Çizelge 6. Psikolojik güçlendirme ile çevik liderlik ve yenilikçi davranış arasındaki ilişkinin incelenmesi Table 6. Examining the relationship between psychological empowerment and agile leadership and innovative behavior

	Agile Leade rship Dimen sion1	Agile Leaders hip Dimensi on2	Agile Leaders hip Dimensi on3	Agile Leaders hip Dimensi on4	Agile Leaders hip Scale	Innovati ve Behavior Scale	Psycholog ical Empower ment Dimensio n1	Psycho cal Empor ment Dimer n2	ical wer Empower ment	ical Empower ment Scale
Agile Leadership	r 1	,436**	,316**	,298**	,769**	<i>,</i> 563 ^{**}	,154**	,057	,068	,148**
Dimension1	р	,000,	,000,	,000,	,000	,000	,002	,252,	,169	,003
Agile Leadership	r	1	,651**	,634**	,861**	,195**	,150**	-,019	,071	,127*
Dimension2	р		,000,	,000,	,000	,000	,002	,703	,152	,010
Agile Leadership	r		1	,682**	,742**	,079	,155**	,039	,076	,146**
Dimension3	р			,000,	,000	,109	,002	,430	,124	,003
Agile Leadership	r			1	,730**	,025	,137**	,050	,087	,137**
Dimension4	р				,000	,612	,006	,311	,079	,005
Agile Leadership	r				1	,365**	,191**	,037	,093	,177**
Scale	р					,000	,000	,455	,060	,000,
Innovative	r					1	,200**	,268**	,122 [*]	,247**
Behavior Scale	р						,000	,000,	,013	,000,
Psychological	r						1	,393**	,254**	<i>,</i> 923 ^{**}
Empowerment	р							,000,	,000,	,000,
Dimension1										
Psychological	r							1	,540**	,670**
Empowerment	р								,000,	,000,
Dimension2										**
Psychological	r								1	,555**
Empowerment	р									,000,
Dimension3										
Psychological	r									1
Empowerment	р									
Scale										

*p<0,05; **p<0,01

As a result of the correlation test, the regression test was performed to examine the effect for the variables that were related. The results of the regression test conducted to examine the effects of agile leadership and innovative behavior dimensions on the sub-dimensions of psychological empowerment are given in Table 7, Table 8 and Table 9 below. Çizelge 7. Çevik liderlik ve yenilikçi davranış boyutlarının, psikolojik güçlendirme Boyut 1'e etkisinin incelenmesi Table 7. Examination of the effects of agile leadership and innovative behavior dimensions on Psychological empowerment Dimension 1

Dependent variable	Independent variable	Beta	t	р	R2
	Agile Leadership Dimension1	-,010	-,148	,882	
	Agile Leadership Dimension2	,020	,286	,775	
Psychological Empowerment Dimension1	Agile Leadership Dimension3	,088	1,223	,222,	,062
	Agile Leadership Dimension4	,062	,877	,381	
	Innovative Behavior Scale	,193	3,249	,001*	
Model: F=5,365 p=,000					

Çizelge 8. Yenilikçi davranışın, psikolojik güçlendirme Boyut2'ye etkisinin incelenmesi

Table 8. Examination of the effect of innovative behavior on the psychological empowerment Dimension 2						
Dependent variable	Independent variable	Beta	t	р	R2	
Psychological Empowerment Dimension2	Innovative Behavior Scale	,268	5,628	,000*	,072	
Model: F=31,673 p=,000						

Çizelge 9. Yenilikçi davranışın, psikolojik güçlendirme Boyut3'e etkisinin incelenmesi

 Table 9. Examination of the effect of innovative behavior on the psychological empowerment Dimension 3

Dependent variable	Independent variable	Beta	t	р	R2
Psychological Empowerment Dimension3	Innovative Behavior Scale	,122	2,482	,013	,015
Model: F=6,158 p=,013					

Çizelge 10. Çeviklik liderlik boyutları ve yenilikçi davranışın, psikolojik güçlendirmeye etkisinin incelenmesi Table 10. Examination of agility leadership dimensions and the effect of innovative behavior on psychological empowerment

rusic 10. Examination of aginty reduction planter							
Dependent variable	Independent variable	Beta	t	р	R2		
Psychological Empowerment Scale	Agile Leadership Dimension1	-,053	-,832	,406	,083		
	Agile Leadership Dimension2	-,025	-,361	,718			
	Agile Leadership Dimension3	,088	1,251	,212,			
	Agile Leadership Dimension4	,102	1,452	,147			
	Innovative Behavior Scale	,272,	4,641	,000*			
Model: F=7,340 p=,000							

Çizelge 11. Çevik liderlik ve yenilikçi davranışın, psikolojik güçlendirmeye etkisinin incelenmesi

Table 11. Investigation of the effect of agile leadership and innovative behavior on psychological empowerment

		····	1/	J -		
	Dependent variable	Independent variable	Beta	t	р	R2
Psy	chological Empowerment Scale	Agile Leadership Scale Innovative Behavior Scale	,100 ,211	1,948 4,108	,052 ,000*	,070
	Model: F=15,282 p=,000					

In Table 7, the model established to examine the effects of agile leadership and innovative behavior dimensions on psychological empowerment Dimension 1 is significant (p<0,05). When the results are examined, Innovative Behavior affects Psychological Empowerment Dimension1 positively (Beta=0,193). 6,2% of the change in Psychological Empowerment Dimension1 is explained by Innovative Behavior.

The model established in Table 8 to examine the effect of innovative behavior on the psychological empowerment Dimension2 is significant (p<0,05). When the results are examined, Innovative Behavior affects Psychological Empowerment Dimension 2 positively (Beta=0,268). 7,2% of the change in Psychological Empowerment Dimension2 is explained by Innovative Behavior.

In Table 9, it is seen that the model established to examine the effect of innovative behavior on the psychological empowerment Dimension 3 is significant (p<0,05). When the results are examined, Innovative Behavior affects Psychological Empowerment Dimension 3 positively (Beta=0,122). 1,5% of the change in Psychological Empowerment Dimension3 is explained by Innovative Behavior.

According to the results of this analysis, "H1: Agile leadership sub-dimensions and innovative behaviors have an effect on the sub-dimensions of psychological empowerment." The hypothesis has been accepted.

The results of the analysis examining the effects of agility leadership dimensions and innovative behavior on psychological empowerment are given in table 10.

The model established to examine the effect on the psychological empowerment scale in Table 10 is significant (p<0,05). When the results are examined, Innovative Behavior positively affects Psychological Empowerment (Beta=0,272). 8,3% of the variation in Psychological Empowerment is explained by Innovative Behavior.

According to the results of the analysis, "H2: Agile leadership sub-dimensions and innovative behaviors have an effect on psychological empowerment." The hypothesis has been accepted.

The results of the regression test conducted to examine the effect of agile leadership and innovative behavior on psychological empowerment are given in Table 11 below.

The model established to examine the effect on the psychological empowerment scale in Table 11 above is significant (p<0,05). When the results are examined, Innovative Behavior positively affects Psychological Empowerment (Beta=0,211). 7,0% of the variation in Psychological Empowerment is explained by Innovative Behavior.

According to the results of the analysis, "H3: Agile leadership and innovative behaviors have an effect on psychological empowerment." hypothesis was accepted.

Discussion

As a result, it was determined in the study that agile leadership and innovative behaviors have an effect on psychological empowerment and on the sub-dimensions of psychological empowerment. When the literature is examined, it is seen that the results of the research on agile leadership, innovative behaviors, and psychological capital support the results of this study:

Research conducted by Thomas and Velthouse in 1990 showed that employees avoid using their talents if they do not see themselves as competent and do not have enough self-confidence. Spreitzer (1995) found a positive relationship between psychological empowerment subdimensions and innovative behaviors. The studies of Tekin and Akgemci in 2019 determined that the dimensions of psychological empowerment had a positive effect on the dimensions of innovative work behavior. In addition, it has been observed that the competence dimension of psychological empowerment has no effect on any dimension of innovative work behavior. The studies of Redmond et al. in 1993 revealed that employees with innovative behaviors have high self-efficacy and adopt their work. In their study, Çekmecelioğlu and Eren (2007) found that meaning, autonomy and impact dimensions of psychological empowerment positively affect idea generation and research from creative behavior dimensions. According to the research, the dimension that most affected creative behaviors was autonomy. In the studies conducted by De Jong and Den Hartog (2010) and Özkan (2017), it was concluded that creative and innovative work behaviors are positively affected by selfefficacy. In their research, Çekmecelioğlu and Eren (2007) concluded that meaning, autonomy and influence, which are sub-dimensions of psychological empowerment, positively affect idea generation and research subdimensions, which are creative behavior sub-dimensions. However, it has been determined that the competence dimension has no effect on creative behavior.

Conclusion and Recommendations

In the study, the effect of agile leadership and innovative behaviors of employees in the information and communication sector across Türkiye on psychological empowerment and its sub-dimensions was investigated. According to the results of the Pearson correlation test conducted to examine the relationship between the variables, it was determined that agile leadership subdimensions and innovative behaviors were correlated with the psychological empowerment sub-dimensions, but this relationship was weak. According to the results of the research, agile leadership sub-dimensions and innovative behaviors have an effect on the subdimensions of psychological empowerment; agile leadership sub-dimensions and innovative behaviors have an effect on psychological empowerment; It has been determined that agile leadership and innovative behaviors have an effect on psychological empowerment.

Based on these results, it can be said that organizations need to create a culture of innovation and harmony in order to move forward in today's variable and uncertain environmental conditions. Managers who will create a culture of innovation and compliance need to invest in developing agile leadership characteristics. Organizations should develop policies and practices to support innovative behavior among employees. Organizations need to adopt attitudes appropriate to the importance of psychological empowerment in order to increase employee motivation, participation, and performance.

The high self-efficacy of employees in organizational activities improves their innovative behaviors. The fact that the employees find their work meaningful and participate in the activity processes and decisions ensures their psychological empowerment. Each dimension of innovative behavior is considered important in terms of organizational behavior. In order to develop innovative behaviors, it is seen that the perceptions of the employees about the meaning dimension should be increased. In addition, necessary practices such as reward and information sharing can be done for the realization of psychological empowerment.

Based on the research and analysis presented in this study, the following recommendations are offered for leaders looking to increase agile leadership, encourage innovative behavior, and support psychological empowerment:

- Developing Agile Leadership: Investments can be made in training and development programs focused on agile leadership. This can enable learning new skills such as strategic thinking, adaptability and change management, as well as improving existing leadership skills such as communication and collaboration.
- Encourage innovation: Employees can be provided with opportunities to generate and share ideas, and creativity and risk taking can be rewarded. Collaboration between teams and departments can be encouraged and a culture of learning can be fostered.

- Promote psychological empowerment: Employees can be provided with opportunities for free thinking, skill development, and a sense of organizational purpose and meaning. Participation in decisionmaking processes can be encouraged, personal and professional development of employees can be supported.
- Creating a supportive work environment: A workplace culture that supports innovation, psychological empowerment, and agile leadership can be developed. Resources can be provided for continuous learning and development, rewards can be made by appreciating success, and organizational cooperation and team spirit can be created.

Leaders who are committed to increasing agile leadership behaviors, encouraging innovative behaviors, and providing psychological empowerment in their employees should strive to develop strategies within this framework and put them into action in the workplace.

Limitations of the Study and suggestions for future studies

One of the limitations of the study is that it was conducted in only one sector. The results can be compared by conducting research in different sectors. Another limitation is that the study is not longitudinal. The study was carried out between 01.01.2023 and 30.03.2023. Further studies can be carried out at regular intervals to obtain more comprehensive findings. In the study, 410 samples were reached. By reaching a larger sample, the results can be compared. New models can be created with different variables that affect psychological empowerment. In addition, different quantitative and qualitative methods can be used.

Declaration of Research and Publication Ethics

This study has been carried out in accordance with the rules of scientific research and publication ethics. Also, the study has an ethics committee approval from İstanbul Esenyurt University Rectorate, Social and Human Sciences Scientific Research and Publication Ethics Committee.

Authors' Contribution

The contribution of both authors is half.

Declaration of Conflict of Interest

There is no conflict of interest for the authors or third parties arising from the search.

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Extended Abstract

Agile leadership and innovative behavior are two important factors that contribute to the success of organizations in today's rapidly changing business environment. On the other hand, psychological empowerment is a concept that positively affects the motivation, participation and performance of employees and attracts increasing attention in the field of organizational behavior. In the study, the effects of agile leadership and innovative behaviors on psychological empowerment and its dimensions were examined. "Agile Leadership Scale", "Innovative Behavior Scale" and "Psychological Empowerment Scale" were used in the questionnaire form used in the research. The sample of the research consisted of 410 people working in the information and communication sector throughout Türkiye. The obtained data were analyzed by SPSS 21.0, the relationship between the scale scores and the Pearson correlation, and the effect was analyzed by regression analysis. As a result of the analysis of the collected data, the effect of agile leadership and innovative behaviors on psychological empowerment was tried to be determined. Then, the results of the analysis were evaluated, and in the conclusion part, the necessity of agile leadership and the importance of adapting to innovative behaviors and suggestions for business life in order to increase psychological empowerment were presented. When the literature was examined, no study was found related to the research subject. In this context, it is thought that the study will make an important contribution to the literature.

The aim of this research is to determine the effect of agile leadership and innovative behaviors of employees in the information and communication sector across Türkiye on psychological empowerment. In addition, it is to determine the effect of agile leadership and innovative behaviors on psychological empowerment, meaning, competence, autonomy and impact sub-dimensions.

In this study, it is assumed that agile leadership and innovative behaviors have an effect on psychological empowerment. Accordingly, the following hypotheses have been proposed:

H1: Agile leadership and innovative behaviors have an impact on meaning.

H2: Agile leadership and innovative behaviors have an impact on competence.

H3: Agile leadership and innovative behaviors have an effect on autonomy.

H4: Agile leadership and innovative behaviors have an impact on impact.

H5: Agile leadership and innovative behaviors have an effect on psychological empowerment.

The analysis of the obtained data was done with SPSS 21.0. In the study, the scale scores were calculated and the kurtosis and skewness coefficients were examined to determine the conformity of the scores to the normal distribution. The kurtosis and skewness values obtained from the scales are found to be between +3 and -3 for

normal distribution (Groeneveld & Meeden, 1984; Moors, 1986; Hopkins & Weeks, 1990; De Carlo, 1997). Since normality was ensured, parametric test techniques were used, the relationship between the scale scores was analyzed with the Pearson correlation test, and the effect was examined with regression analysis.

The population of the research consists of 258 746 people working in the information and communication sector operating throughout Türkiye (TUIK, 2022). In the study, 410 working people were reached between 01.01.2023 and 30.03.2023 using the convenience sampling method. 410 samples are considered sufficient for the study.

The questionnaire form used in the research consists of 4 parts. Demographic characteristics were used in the first part, "Agile Leadership Scale" in the second part, "Innovative Behaviors Scale" in the third part, and "Psychological Empowerment Scale" in the fourth part. A 5-point Likert scale (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree) was used in the questionnaire. A 5-question form was created, including demographic information, such as gender, age, educational status, status, and seniority in the workplace.

In the study, the scale scores were calculated and the kurtosis and skewness coefficients were examined to determine the conformity of the scores to the normal distribution. The kurtosis and skewness values obtained from the scales are found to be between +3 and -3 for normal distribution (Groeneveld and Meeden, 1984; Moors, 1986; Hopkins and Weeks, 1990; De Carlo, 1997). Since the skewness and kurtosis values obtained from the scale scores were between +3 and -3, normality was ensured and parametric test techniques were used in our analyses. The relationship between the scale scores was analyzed by Pearson correlation and the effect was analyzed by regression analysis.

In the study, the effect of agile leadership and innovative behaviors of employees in the information and communication sector across Türkiye on psychological empowerment and its dimensions was investigated. According to the results of the analysis, it is seen that the H1 hypothesis was not accepted and the H2, H3, H4 and H5 hypotheses were accepted. The results of the analysis showed that agile leadership and innovative behaviors have an effect on psychological empowerment and on the dimensions of competence, autonomy and influence. In addition, it has been determined that it has no effect on the meaning dimension.

Based on these results, it can be said that organizations need to create a culture of innovation and harmony in order to move forward in today's variable and uncertain environmental conditions. Managers who will create a culture of innovation and compliance need to invest in developing agile leadership characteristics. Organizations should develop policies and practices to support innovative behavior among employees. Organizations must recognize the importance of psychological empowerment in increasing employee motivation, engagement and performance. Based on the research and analysis presented in this study, the following recommendations are offered for leaders looking to increase agile leadership, encourage innovative behavior, and support psychological empowerment:

- Developing Agile Leadership: Investments can be made in training and development programs focused on agile leadership. This can enable learning new skills such as strategic thinking, adaptability and change management, as well as improving existing leadership skills such as communication and collaboration.
- Encourage innovation: Employees can be provided with opportunities to generate and share ideas, and creativity and risk taking can be rewarded. Collaboration between teams and departments can be encouraged and a culture of learning can be fostered.
- Promote psychological empowerment: Employees can be provided with opportunities for free thinking, skill development, and a sense of organizational purpose and meaning. Participation in decisionmaking processes can be encouraged, personal and professional development of employees can be supported.
- Creating a supportive work environment: A workplace culture that supports innovation, psychological empowerment and agile leadership can be developed. Resources can be provided for continuous learning and development, rewards can be made by appreciating success, and organizational cooperation and team spirit can be created.

References

- Ahearne, M., Lam, S. K., & Kraus, F. (2014). Performance impact of middle managers' adaptive strategy implementation: The role of social capital. *Strategic Management Journal*, *35*(1), 68-87.
- Akkaya, B. (2020). Review of leadership styles in perspective of dynamic capabilities: An empirical research on managers in manufacturing firms. *Yönetim Bilimleri Dergisi*, *18*(36), 389-407.
- Akkaya, B. & Bayram, B. (2021). Yönetim Araştırmalarında Postmodern Bir Liderlik: Çevik Liderlik. *Yönetim, Ekonomi ve Pazarlama Araştırmaları Dergisi*, 5(3), 173- 188.
- Akkaya, B., Kayalıdere, U. A. K., Aktaş, R. & Karğın, S. (2020). Çevik liderlik yaklaşımı ve çevik lider davranışlarını ölçmeye yönelik bir ölçek geliştirme çalışması. İşletme Araştırmaları Dergisi Journal of Business Research-Turk, 12(2), 1605-1621
- Amabile, T. M. & Khaire, M. (2008). Yaratıcılık ve liderin rolü. Harvard Business Review, 86(10), 100-109.
- Attar, M. & Abdul- Kareem, A. (2020). *Comprehensive Strategic Management*. Emerald Publishing Limited.
- Ardts, J.C.A., van der Velde, M.E.G.ve Maurer,T.J., (2010) The Influence Of Perceived Characteristics Of Management Development Programs On Employee Outcomes. *Human Resource Development Quarterly*, 21(2):411–434.
- Bass, B. L. (2019). Surgical leadership in changing times: the american college of surgeons perspective. *Innovative Surgical Sciences.Baer & Frese*, 2003.

- Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-Leadership Skills and Innovative Behavior at Work. *International Journal of Manpower*, 27, 75–90.
- Conger, J. A. ve Kanungo, R.N. (1988). The Empowerment Process: Integrating Theory and Practice. Academy Of Management Review, 13, 471-482.
- De Carlo, L.T. (1997). On the meaning and use of kurtosis, *Psychological Methods*, 2: 292-307.
- Denning, S. (2018). The age of agile: how smart companies are transforming the way work gets done. New York.
- Gebert D, Boerner S ve Kearney E (2006) Cross Functionality and Innovation in New Product Development Teams: A Dilemmatic Structure and Its Consequences for the Management of Diversity. *Eur J Work Organ Psychol*, 15:431–458
- Groeneveld, R.A. & Meeden, G. (1984). Measuring skewness and kurtosis, *The Statistician*, 33: 391-399.
- Hayward, S. (2018). The agile leadership. how to create an agile business in the digital age. Kogan Page Limited.
- Henson, C. (2015). *Agile leadership for a changing workplace*. Learning Quest.
- Hopkins, K.D. & Weeks, D.L. (1990), Tests for normality and measures of skewness and kurtosis: their place in research reporting, *Educational and Psychological Measurement*, 50: 717-729.
- Jeong, J. (2004). Analysis of The Factors And The Roles of Hrd in Organizational Learning Styles As Identified By Key Informants At Selected Corporations in The Republic of Korea. Yayımlanmamıs doktora tezi. Amerika: Texas A&M University. Major Subject: Educational Human Resource Development.
- Joiner, B. & Josephs, S. (2007). Developing agile leaders. Industrial and Commercial Training, 39(1), 35-42.
- Köhler, T., Janßen, C., Plath, S.C., Reese, J.P., Lay, J., Steinhausen, S., Gloede, T., Kowalski C., Schulz-Nieswandt F. ve Pfaff, H., (2010). Communication, social capital and workplace health management as determinants of the innovative climate in German banks. *Int J Public Health*, 55(6): 561–570.
- Kusek, J. Z. & Rist, R. C. (2010). On adımda sonuç odaklı izleme ve değerlendirme sistemi, kalkınma uygulayıcıları için el kitabı. Dünya Bankası, Küresel HIV/AIDS Programı ve Operasyonlar Değerlendirme Dairesi. Fersa Matbaacılık Ltd. Şti., Ankara.
- Laschinger, H. K. S., Finegan, J., Shamian, J. ve Wilk, P. (2004). A Longitudinal Analysis of the Impact of Workplace Empowerment on Work Satisfaction. *Journal of Organizational Behavior*, 25(4), 527-545
- Liedtka, J. (2015). Perspective: Linking design thinking with innovation outcomes through cognitive bias reduction. Journal of product innovation management, 32(6), 925-938.
- Lukes, M. & Stephen, U. (2017). Measuring employee innovation: A review of existing scales and the development of the innovative behavior and innovation support inventories across cultures. *International Journal of Entrepreneurial Behaviour & Research*, 23(1), 136-158.
- Moors, J. J. A. (1986). The meaning of kurtosis: Darlington reexamined, *The American Statistician*, 40: 283-284.
- Nal, M., Bektaş, G. ve Kaya, E. (2020). Hizmetkar liderliğin örgütsel bağlılık üzerindeki etkisinde psikolojik güçlendirmenin aracılık rolü. Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 6(3), 842-858.
- Nunnally, J. C. (1967). *Psychometic Theory*, McGraw-Hill, Inc., 1. Baskı, New York.

- O'Brien, J. L. (2010). Structural Empowerment, Psychological Empowerment and Burnout in Registered Staff Nurses Working in Outpatient Dialysis Centers, Degree of Doctor of Philosophy, New Jersey, The State University of New Jersey.
- Özdemir, N. & Çetin, M. (2019), Çevik liderlik ölçeğinin geliştirilmesine yönelik güvenilirlik ve geçerlilik çalışması: eğitim örgütleri üzerine bir uygulama. *R&S Research Studies Anatolia Journal*, 2(7), 312-332.
- Pala, O. & Turan, N. (2020). Yenilikçi davranış ölçeğinin (YDÖ) Türkiye'ye uyarlama çalışması. Anadolu Üniversitesi Sosyal Bilimler Dergisi, 20(3), 65-80.
- Parker, D. W., Holesgrove, M. & Pathak, R. (2015). Improving productivity with self-organised teams and agile leadership. *International Journal of Productivity and Performance Management*, 64(1), 112-128.
- Pieterse, A. N., Hollenbeck, J. R., van Knippenberg, D., Spitzmüller, M., Dimotakis, N., Karam, E. P. & Sleesman, D. J. (2019). Hierarchical leadership versus self-management in teams: goal orientation diversity as moderator of their relative effectiveness. *The Leadership Quarterly*, 30(6), 101-343.
- Rigby, D. K., Sutherland, J. & Takeuchi, H. (2016). *The Secret History of Agile Innovation*.
- Scott, S. G. & Bruce, R. A. (1994). Determinants of innovative behavior: a path model of individual innovation in the workplace. Academy of Management Journal, 38, 1442-1465. doi:10.2307/256701
- Shalley, C. E., & Perry-Smith, J. E. (2008). The emergence of team creative cognition: the role of diverse outside ties, sociocognitive network centrality, and team evolution. *Strategic Entrepreneurship Journal*, 2(1), 23-41.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. Academy of Management Journal, 38, 1442-1465. doi: 10.2307/256865
- Thomas, K. W. ve Velthouse, B. A. (1990). Cognitive Elements of Empowerment. *Academy of Management Review*, 15(4), 666-681.
- Tekin, İ. Ç., & Akgemci, T. (2019). Psikolojik Güçlendirmenin Yenilikçi İş Davranışına Etkisi. İşletme Araştırmaları Dergisi, 11(3), 1674-1692.
- TUIK verileri (2022). Ücretli çalışan istatistikleri, Ocak 2022 https://data.tuik.gov.tr/Bulten/Index?p=Ucretli-Calisan-Istatistikleri-Ocak-2022-45818 Erişim Tarihi:13.04.2023
- Turan, H. Y. (2021). Algılanan çevik liderlik davranışının çalışanların performans düzeylerine ve işten ayrılma niyetlerine etkisi: antalya'daki otel işletmelerinde bir araştırma. İskenderun Teknik Üniversitesi Lisanüstü Eğitim Enstitüsü, İskenderun.
- Turgut, A. ve Sağlam Arı, G. (2021). Paternalist Liderlik ve Psikolojik Güçlendirme Arasındaki İlişkide Temel Benlik Değerlendirmesinin Düzenleyici Etkisi: Dış Ticaret Firmalarında Bir Araştırma. Selçuk Üniversitesi Sosyal Bilimler Meslek Yüksekokulu Dergisi, 24 (2), 440-452.
- Uner, S. & Turan, S. (2010). The construct validity and reliability of the Turkish version of Spreitzer's psychological empowerment scale. *BMC Public Health* 10, 117.https://doi.org/10.1186/1471-2458-10-117
- Von Hippel, E.,(1988). *The Sources of Innovation*, Oxford University Pres, Newyork
- West, M. & Sacramento, C. (2012) creativity and innovation: the role of team and organizational climate handbook of organizational creativity. *Mumford, M. (Der.).* London: Academic Press.



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Mapping the Landscape of Impostor Phenomenon Research in Organizational Behavior: A Bibliometric Study between 2003 and 2022

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Research Article	ABSTRACT
History	The Impostor Phenomenon is a psychological phenomenon characterized by an individual's inability to internalize their success despite substantial evidence, leading them to feel like a fraud in their status. This phenomenon is increasingly recognized as an essential factor in the success and survival of organizations.
Received: 25/07/2023 Accepted: 21/09/2023	However, despite its practical and scientific importance, the Impostor Phenomenon has a relatively short history in the field of organizational behavior. Research into the impostor phenomenon in organizational behavior has seen significant growth between 2003 and 2022. This study aims to provide a comprehensive overview of the research status of this topic during this period and to determine the main and sub-themes in which this concept has been examined in academic contexts. The current study focuses on determining which main and sub-themes
JEL Codes: D23 Organizational Behavior	this concept is examined in the cademic contexts. In the study, the articles in the Web of Science database were examined. The articles were analyzed by performing Bibliometrics analysis with the Vosviewer program. It is aimed to determine and cluster the network relations of the concepts with each other. It has been determined that five basic clusters are word or concept-based representations of the imposter phenomenon. These clusters are named "Organizational Psychology", "Business Management", "Sustainable Business", "Human Resource Management and Positive Psychology" and "Organizational Change Management."

Keywords: Impostor phenomenon, impostor syndrome, bibliometric analysis

Örgütsel Davranış Yazınında İmpostor Fenomenine İlişkin Yürütülen Çalışmaların İzini Sürmek: 2003 ile 2022 Yılları Arasında Yürütülen Çalışmalara Yönelik Bİbliyometrik Bir Analiz ve Haritalama

	ÖZ
Süreç	Sahtekarlık Fenomeni, bir başka deyişle impostor fenomeni, bir bireyin önemli kanıtlara rağmen başarılarını içselleştirememesi ve kendilerini bir sahtekâr gibi hissetmelerine neden olan psikolojik bir olgu olarak
Geliş: 00/00/0000 Kabul: 00/00/0000	tanımlanmaktadır. Bu olgu, örgütlerin başarısında ve hayatta kalmasında giderek daha önemli bir faktör haline gelmiştir. Ayrıca impostor fenomeni, dile getirilen teorik ve pratik önemine rağmen, örgütsel davranış alanında henüz yeterli düzeyde mercek altına alınmamıştır. Örgütsel davranış alanında impostor fenomeni üzerine yapılan araştırmalarda 2003 ve 2022 yılları arasında önemli bir artış görülmektedir. Bu çalışma iki amaç gütmektedir: İmpostor fenomenine ilişkin ilgili yıllarda yapılan araştırmaları incelemek ve impostor olgusunun incelendiği
JEL Kodları: D23	çalışmalarda oluşan ana ve alt temaları saptamak. Çalışmada, araştırma konusuna ilişkin Web of Science veri tabanında yer alan 2003 ile 2022 yılları araşında yayımlanan makaleler incelenmiştir. İlgili makaleler, Vosviewer programı ile bibliyometri analizine tabi tutulmuştur. Bu doğrultuda beş küme tespit edilmiştir. Bu kümeler "Örgüt Psikolojisi", "İşletme Yönetimi", "Sürdürülebilir İşletme", "İnsan Kaynakları Yönetimi ve Pozitif Psikoloji" ile "Örgütsel Değişim Yönetimi "olarak saptanmıştır.
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Introduction

The impostor phenomenon, also known as impostor syndrome, is a psychological phenomenon often observed in high-achieving individuals with a persistent fear of being exposed as a fraud or impostor despite evidence of competence and success (Clance & Imes, 1978). It is characterized by feelings of self-doubt, inadequacy, and fear of failure, and it can manifest in various areas of life, including academia, work, and personal relationships. Research on the phenomenon has primarily focused impostor on understanding its causes, consequences, and ways to mitigate its negative effects. Some factors associated with the impostor phenomenon include perfectionism, fear of failure, and cultural and societal pressures (Chrisman et al., 1995; Parkman et al., 2019). In terms of consequences, individuals who experience the impostor phenomenon may be at risk of reduced job satisfaction, burnout, and decreased mental health (Grubb & McDowell, 2019). Recent research has also explored the role of organizational factors in developing and maintaining the impostor phenomenon. For example, organizational cultures that emphasize achievement, competitiveness, and individual performance may exacerbate feelings of self-doubt and inadequacy in individuals who experience the impostor phenomenon (Matsuo et al., 2020). In contrast, organizational cultures that emphasize collaboration, support, and growth may help mitigate the impostor phenomenon's negative effects (Chang et al., 2020). Overall, research on the impostor phenomenon highlights the importance of understanding the psychological and organizational factors contributing to individuals' feelings of self-doubt and inadequacy and developing strategies to support individuals who experience the impostor phenomenon in achieving their full potential. Despite being identified over four decades ago, the impostor phenomenon remains a topic of significant interest in organizational behavior, particularly in employee behavior and attitudes (Huang & Jia, 2021). Thus, the purpose of this article is to conduct a systematic review of the literature on the impostor phenomenon in organizational studies between 2003 and 2022. The review will identify trends, patterns, and gaps in the literature on this phenomenon and provide insights into its causes, consequences, and potential interventions. The review will also provide a foundation for future research in this area, with the ultimate goal of enhancing our understanding of the impostor phenomenon and its impact on individuals and organizations. In this context, the aim of the present study is to determine the scope of the impostor phenomenon based on the keywords and concepts identified in academic articles written in the field of the impostor phenomenon. The main goal is to identify the main outline of the concept and its associated sub-concepts. The article data in the Scopus database were subjected to bibliometric analysis using the Vosviewer program to determine the network relationships of the concept with other possible concepts. The Scopus database was chosen for this study due to its comprehensive coverage of scholarly literature in various research fields. Wouters et al. (2015) noted that Scopus indexes over 23,000 peerreviewed journals, as well as conference proceedings, trade publications, book series, and scholarly web content. This comprehensive coverage allows for a more complete and accurate analysis of research output in a particular field. In addition to its coverage, Scopus provides a wide range of features for analyzing and visualizing research output, including bibliometric indicators such as citation counts, hindex, and co-authorship networks (Jacso, 2005). Therefore, by using Scopus in this study, we were able to obtain a comprehensive and reliable dataset for bibliometric analysis, which enabled us to map the landscape of the impostor phenomenon in academic literature with greater accuracy and completeness. In order to determine in which areas of management the impostor phenomenon concept has been addressed as a new research topic in the critical literature on organizational behavior and to understand how knowledge has developed over time, it is believed that this will provide benefits for researchers in the field.

Theoretical Framework

The impostor phenomenon, also known as imposter syndrome, has been the focus of academic research since its introduction by Clance and Imes in 1978. Initially, early studies focused on the prevalence of the impostor phenomenon and its impact on an individual's mental health and career success. For instance, Matthews and Clance (1985) found that approximately 70% of high-achieving individuals reported experiencing the impostor phenomenon at some point in their lives and that these feelings were associated with high anxiety levels and low job satisfaction. Ferrari et al. (1998) found that the impostor phenomenon was positively related to perfectionism and negatively related to self-esteem. Later research began to examine the antecedents of the impostor phenomenon in the organizational context. Since the early 2000s, research on the impostor phenomenon has continued to evolve and expand in several directions. One major area of inquiry has been examining the relationship between the impostor phenomenon and various mental health and well-being aspects. Gilmartin and D'Aunno (2007) found that high levels of social support and feedback from colleagues and supervisors were negatively related to the impostor phenomenon in a sample of healthcare executives. Parkman and Beard (2008) found that individuals who experienced the impostor phenomenon were more likely to engage in selfhandicapping behaviors, such as procrastination and avoiding challenging tasks. This research helped to identify some of the individual factors that contribute to the impostor phenomenon and its negative consequences. For instance, Chen et al. (2009) found that the impostor phenomenon was associated with higher levels of depression and anxiety among Chinese university students. Another important area of research has been the exploration of the antecedents and consequences of the impostor phenomenon in different occupational and organizational contexts. For example, Harvey et al. (2011) found that the impostor phenomenon was negatively related to job satisfaction and positively related to turnover intentions among employees in the

healthcare industry. Vergauwe et al. (2015) found that the impostor phenomenon was positively related to the fear of negative evaluation and negatively related to the need for achievement in a sample of managers. However, the impostor phenomenon in the field of organizational behavior has begun to be investigated in the last five years (Neureiter & Traut-Mattausch, 2017). More recent research has focused on the consequences of the impostor phenomenon for leaders and their organizations. For instance, Buelens et al. (2018) found that leaders who experienced the impostor phenomenon were more likely to engage in dysfunctional behaviors, such as micromanaging and avoiding delegation. Bernardi and Mangiavacchi (2018) found that the impostor phenomenon was negatively related to life satisfaction and positively related to stress among Italian workers. More recent research has also begun to examine the potential role of interventions in helping individuals overcome the impostor phenomenon. For example, Sowislo and Orth (2018) found that cognitive-behavioral therapy was effective in reducing impostor feelings and increasing self-esteem among German university students. Liu et al. (2019) found that the impostor phenomenon was negatively related to job performance and positively related to burnout among Chinese software engineers. In addition to these areas of inquiry, research on the impostor phenomenon has also expanded to include a focus on the role of cultural and social factors in shaping individuals' experiences of impostor feelings. The impostor phenomenon is prevalent among individuals at all levels of organizational hierarchies, from entry-level employees to top executives (Parkman et al., 2019; Reyes & Chrisman, 2021). It can negatively affect individuals' psychological well-being, job satisfaction, and job performance (Rim et al., 2021). Moreover, the impostor phenomenon can also impact organizations through its effect on employee behavior and attitudes. For example, individuals experiencing impostor feelings may avoid challenging tasks or opportunities for fear of failure, leading to a decrease in their professional development and potential growth for the organization (Koenig et al., 2019). Bravata et al. (2019) found that medical students who experienced the impostor phenomenon were more likely to report symptoms of depression and anxiety. Aghazadeh et al. (2020) found that a mindfulness-based intervention was effective in reducing impostor feelings and enhancing wellbeing among Iranian nursing students. Despite being identified over four decades ago, the impostor phenomenon remains a topic of significant interest in the field of organizational behavior recently, especially employee behaviors and attitudes (Huang & Jia, 2021). May et al. (2021) found that impostor feelings were more common among LGBTQ+ individuals due to experiences of marginalization and stigma. Zhan et al. (2021) found that the impostor phenomenon was negatively related to transformational leadership behaviors, such as inspirational motivation and intellectual stimulation.

Research on the impostor phenomenon in a psychological context has been conducted from various perspectives, examining a range of factors that contribute to this experience. The following is a chronological

overview of some of the key aspects that have been examined:

- 1. Prevalence and impact: In the early stages of research on the impostor phenomenon, studies focused on its prevalence and impact on an individual's mental health and career success. Matthews and Clance (1985) found that around 70% of high-achieving individuals reported experiencing the impostor phenomenon at some point in their lives and that these feelings were associated with high levels of anxiety and low levels of job satisfaction.
- Antecedents: Later studies examined the antecedents of the impostor phenomenon, identifying various personality traits and environmental factors that contribute to this experience. For instance, Ferrari et al. (1998) found that the impostor phenomenon was positively related to perfectionism and negatively related to self-esteem.
- 3. Consequences: Researchers have also investigated the consequences of the impostor phenomenon, both in terms of individuals' psychological well-being and their behavior. For example, individuals who experience the impostor phenomenon are more likely to engage in self-handicapping behaviors, such as procrastination and avoiding challenging tasks (Parkman & Beard, 2008).
- 4. Interventions: Finally, researchers have begun to develop and test interventions to help individuals overcome the impostor phenomenon. For instance, cognitive-behavioral therapy has been found to be effective in reducing the symptoms of the impostor phenomenon in a sample of graduate students (Sakulku & Alexander, 2011).

Based on the previous discussion, it is clear that conducting a bibliometric review is crucial for understanding the current state of research on the impostor phenomenon in organizational studies. Therefore, by using Scopus as the primary source of bibliometric records, this study was able to identify relevant studies, track trends, and assess the impact of research on the impostor phenomenon in organizational studies.

Research Methodology

In this study, a bibliometric analysis was conducted to identify the related fields and subfields of the Impostor Phenomenon concept. The bibliometric analysis method aims to show the main outlines by focusing on the concentration or clustering of publications that make up the dataset (Van Eck & Waltman, 2010; Roig-Tierno et al., 2017, as cited in Çınar-Altıntaş et al., 2022). We aim to offer structure and clarity to a scattered and extensive body of literature on the impostor phenomenon from the last two decades. To achieve this, we conducted a bibliometric analysis of the literature from 2003 to 2022. The main classifications of information that we analyzed for bibliometrics were the journals, authors, institutions, countries, keywords, references, and trends in the impostor phenomenon literature. Co-occurrence analysis

was preferred as the bibliometric method. To determine the possible network relationships of the concept with other possible concepts, 2441 articles written between 2003-2022 and indexed in Scopus and searched with the keyword "imposter phenomenon" were subjected to analysis. Besides determining the development process of the field, our aim was to determine research topics within the boundaries of the field, as well as to reveal the relationships between these research topics. The data were evaluated with the VOSviewer program. We used the Scopus database. Scopus is a comprehensive multidisciplinary database that includes high-quality scholarly literature from a variety of disciplines, and it is considered a reliable source for bibliometric analysis (Bornmann & Mutz, 2015; Kulkarni et al., 2009). We complied with the PRISMA guidelines and procedures to ensure transparency and rigor in our search process and data screening. We then subjected the eligible records to bibliometric analysis.

Findings

To begin our literature search, we limited our scope to research published between 2003 and December 31st, 2022. We used the following keywords in our search: "organizational behavior," "impostor phenomenon," "impostor syndrome," "impostorism," and "workplace impostor." These terms were selected based on prior research, specifically studies by Kark et al. (2022) and Stone-Sabali et al. (2023). To ensure we captured a broad range of sources, we included various publications, such as articles, books, book chapters, and conference papers. However, to maintain a focus on the field of business and administration, we excluded reviews. After eligibility was determined, we excluded publications before 2003 and after 2022 and reviewed papers, which narrowed the list down to 2,441 entries. The entire search process was carried out systematically following the PRISMA guidelines, which provide a framework for reporting the identification of documents in a systematic review. In conclusion, our search strategy was designed to be comprehensive and include relevant sources while also focusing on business and administration. We followed a systematic process and used Scopus filters to ensure our final list of eligible records was relevant to our research on the impostor phenomenon in organizational behavior studies.

Amount of Publications, Authors and Journal Impacts

Figure 1 depicts the gradual growth of impostor phenomenon publications in the past 20 years, from 2003 to 2022. At the beginning of this period, 35 publications were recorded, which doubled within three years. In 2009, a significant surge in research interest resulted in the publication of 128 scholarly articles on the impostor phenomenon. This figure continued to increase gradually until 2022, with the Scopus Database containing 2441 studies on this topic. Notably, research output increased linearly until 2020, with 197 documents found in 2021 and a peak of 265 documents in 2022 on Scopus. It is worth exploring why the surge in research interest occurred in 2009 and what factors may have contributed to the steady increase in research output over time. The research output in organizational behavior and impostor phenomenon has exhibited a non-linear growth pattern over the past 20 years. Specifically, the output doubled within three years, tripled within 14 years, and increased tenfold within 20 years. Over 50% of the studies were published within the last six years. Of particular note is the dramatic acceleration in research interest in the impostor syndrome since 2020.

We also determined the 15 most cited top-tier authors in the field of impostor phenomenon research, of whom Chakraverty, Cokley, and Yaffe are the top 3 authors. These authors contributed the most to the field of impostor phenomenon research and were key authors in developing and disseminating this topic.

The three top-tier journals publishing in the field of impostor phenomenon research are Frontiers in Psychology, Journal of Personality Assessment, and Current Psychology. The ten top-tier journals can be seen in Figure 2 below. The impostor phenomenon topic was mentioned directly and indirectly mentioned in these journals and also thematized in multidisciplinary fields.









Figure 3: Top Journals with most Publications on Impostor Phenomenon Research

Co-Word (Occurrence) Analysis : Clustering and Visualization

Mentions of at least 20 documents made this analysis. It generated 1754 words, five clusters, 41 items, and themes which are defined and explained below. The aim was to define the main clusters and subthemes in the field of impostor phenomenon research. The first cluster contains the topics of culture, ethics, job satisfaction, leadership, organizational behavior, organizational citizenship, performance, transformational leadership, trust, and unethical pro-organizational behavior. For this reason, these themes may be summarized under the main theme, Organizational Psychology. The second cluster covers the items of Behavioral Research, Decision Making, Entrepreneurship, Innovation, Knowledge Management, Management, Managers, Organisational Behaviour, Organizational Behavior, as well as Project Management and could be items of the main cluster Business Management. Cluster three refers to the subthemes corporate social responsibility, human, organization, perception, psychology, sustainability, and sustainable development which could be summarized as Sustainable Business. The fourth cluster covers the themes Diversity, Employee Attitudes, Human Resource Management, Human Resources, Motivation, Positive Organizational Behavior, and Psychological Capital, whereas the last and fifth cluster covers the subthemes Change management, Organizational Behaviour, Organizational change, Organizational culture, and Organizational Performance. While the fourth cluster could be summarized as Human Resource Management and Positive Psychology, the last and fifth cluster could be named Organizational Change Management. The clusters are named and described below.

Cluster: Organizational Psychology

- Culture,
- Ethics,
- Job satisfaction,
- Leadership,
- Organizational behavior,
- Organizational citizenship,
- Performance,
- Transformational leadership,
- Trust,
- Unethical pro-organizational behavior

Organizational Psychology is a multidisciplinary field that combines principles and concepts from psychology, sociology, and management to study human behavior within organizations. The field aims to understand individual and group dynamics and their impact on organizational outcomes such as job satisfaction, performance, and ethics. Culture, ethics, job satisfaction, leadership, organizational behavior, organizational citizenship, performance, transformational leadership, trust, and unethical pro-organizational behavior are some topics studied in organizational psychology. Organizational psychology seeks to identify ways organizations can create a positive work environment that promotes employee well-being while achieving their goals. For instance, research by Diener and Chan (2011) highlights the importance of promoting a positive organizational culture that emphasizes ethical behavior and values, which can lead to increased job satisfaction and performance. Organizational citizenship, a concept of behaviors that go beyond job requirements, is also studied in organizational psychology. It is linked to positive organizational outcomes such as employee commitment and job satisfaction. Moreover, research by Mayer et al. (2012) suggests that unethical proorganizational behavior, which refers to behaviors that violate ethical standards to benefit the organization, can negatively affect employees and organizations and should be discouraged. According to a study by Schyns and Schilling (2013), leadership has a significant impact on the well-being and performance of employees, with transformational leadership being particularly effective in creating a positive work environment. Trust is another critical component of organizational psychology, affecting employee engagement, commitment, and satisfaction.

Cluster: Business Management

- Behavioral Research,
- Decision Making,
- Entrepreneurship,
- Innovation,
- Knowledge Management,
- Management,
- Managers,
- Organisational Behaviour,
- Organizational Behavior,
- Project Management.

Business management is multifaceted field а encompassing various aspects of managing organizations and achieving their goals. Behavioral research, decisionmaking, entrepreneurship, innovation, knowledge management, management, managers, organizational behavior, organizational behavior, and project management are all essential topics within this field. Organizational behavior is a central component of business management. It involves the study of human behavior within organizations and how it affects organizational outcomes such as job satisfaction, performance, and ethics. Knowledge management is another crucial aspect of business management. involves systematically managing lt organizational knowledge to create value and improve performance. According to Alavi and Leidner (2001), "Knowledge management is becoming increasingly important as organizations recognize the value of their intellectual assets and seek to leverage them for competitive advantage" (p. 107). According to Bazerman and Moore (2013), "Decision-making is a key function of management, as managers are responsible for making decisions that affect the organization's performance and success" (p. 5). Entrepreneurship and innovation are also essential topics

within business management. Entrepreneurship involves creating and developing new businesses, while innovation involves introducing new ideas, products, or processes within an organization. According to Kuratko, Hornsby, and Covin (2014), "Entrepreneurship and innovation are crucial for organizations to remain competitive in today's dynamic business environment" (p. 3). Effective management of entrepreneurship and innovation can help organizations identify new opportunities and adapt to changes in the market. Project management is also an essential component of business management. It involves planning, organizing, and controlling resources to achieve specific goals within a defined time frame. Effective project management can help organizations complete projects on time, within budget, and to the desired quality, which is, according to Kerzner (2017), a critical skill for managers due to its contribution to the organizations' success with executing projects and effective plans. According to Robbins and Judge (2019), organizational behavior "seeks to understand and explain the behavior of individuals and groups in organizations and how the behavior can be applied to improve organizational effectiveness" (p. 4). Understanding organizational behavior is crucial for managers, as it can help them create a positive work environment and promote employee well-being. Decisionmaking is another crucial aspect of business management. It involves selecting the best course of action from a set of alternatives. Cognitive biases, emotions, and organizational culture can influence decision-making.

Cluster: Sustainable Business

-corporate social responsibility,

- human,
- organization,
- perception,
- -psychology,
- sustainability,
- sustainable development.

Sustainable business is a crucial concept in today's business world, as organizations increasingly realize the importance of balancing economic, social, and environmental concerns. Corporate social responsibility is an essential aspect of sustainable business. It refers to the "obligation of organizations to act in ways that serve the interests of society as well as their own" (Carroll, 1979, p. 500). This involves considering the impact of business practices on various stakeholders, such as employees, customers, communities, and the environment, and taking action to address any negative impacts. Sustainability and sustainable development are other critical components of sustainable business. According to Elkington (1998), sustainability is "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (p. 19). On the other hand, sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987, p. 8). These concepts emphasize the need to consider the long-term impacts of business practices on the environment and future generations. Human perception and psychology also play a significant role in sustainable business practices. As noted by Bhattacharya and Sen (2004), "consumer perceptions of corporate social responsibility can influence their buying decisions and can ultimately affect the financial performance of firms" (p. 71). This highlights the importance of understanding human behavior and psychology in promoting sustainable business practices. As noted by Waddock and McIntosh (2011), "sustainable business is not a destination but a journey, requiring continuous learning, reflection, and improvement" (p. 3). Therefore, organizations must adopt a holistic, long-term approach to sustainable business practices.

Cluster: Human Resource Management and Positive Psychology

- Diversity,

- Employee Attitudes,
- Human Resource Management,
- Human Resources,
- Motivation,
- Positive Organizational Behavior,
- Psychological Capital.

Promoting work engagement is an essential aspect of human resource management and positive psychology. Work engagement refers to the extent to which employees are invested in and committed to their work (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Research has shown that promoting work engagement can improve performance and reduce turnover rates (Hakanen et al., 2006). Effective human resource management and positive psychology practices also promote the development of employees' psychological capital. This involves fostering positive psychological resources such as self-efficacy, optimism, hope, and resilience, which can improve job performance and well-being (Luthans et al., 2007). Research has shown that effective human resource management and positive psychology practices can benefit organizations, including increased employee satisfaction and retention, improved productivity, and enhanced organizational performance (Luthans & Youssef-Morgan, 2017). A critical aspect of this field is promoting diversity and inclusion within organizations. Studies have shown that diverse workforces can improve problem-solving, creativity, and innovation (Cox &

Blake, 1991). Therefore, organizations must develop strategies promoting diversity and inclusion, such as implementing bias training programs and creating inclusive hiring practices.

Cluster: Organizational Change Management

- Change management,
- Organizational Behaviour,
- Organizational change,
- Organizational culture,
- Organizational Performance

The fifth cluster, which contains the items change management, organizational behavior, organizational change, organizational culture, and organizational performance, is encompassed by "Organizational Change Management ." Organizational change management is vital to any successful business, as it helps organizations adapt to new challenges and opportunities while maintaining their core values and goals. According to Armenakis and Harris (2002), "the effective management of organizational change requires an understanding of the complex interactions between individuals, groups, and organizations" (p. 107). Effective organizational change management also focuses on performance, as the ultimate goal of change initiatives is to enhance organizational performance and create a sustainable competitive advantage. To achieve this, it is essential to measure and track organizational performance metrics and seek ways to continually improve processes and procedures. According to Kotter and Schlesinger (2008), "Managers who can successfully manage change are those who can identify and address sources of resistance and who can create a sense of urgency and a shared vision for the future" (p. 23). Organizational change management involves developing strategies and processes for planning, implementing, and monitoring change initiatives within organizations, focusing on ensuring that employees are equipped to adapt to new roles and responsibilities. In order to successfully implement change, it is essential to understand the dynamics of organizational behavior and culture. Schein (2010) notes that "organizational culture is the set of shared assumptions, values, beliefs, and norms that influence the way people behave within an organization" (p. 4).



Figure 4: A Screenshot of the 5 Clusters and 41 Items Based on the Bibliometric Map Created with Network Visualization Mode. Source: VOSViewer.

Results and Final Remarks

The findings of this study suggest a growing interest in the impostor phenomenon, with the number of scholarly articles on the topic increasing steadily over the past 20 years. This growth may reflect a heightened awareness of the impostor phenomenon and its impact on individuals and organizations and an increased willingness to explore it through empirical research. Notably, the research output in this area has exhibited a non-linear growth pattern, with a significant surge in research interest occurring in 2009 and a more recent acceleration since 2020. This suggests that the impostor phenomenon has been an area of interest for some time, but that research in this area has recently gained momentum. Further exploration is needed to identify the factors contributing to this growth and the potential implications for future research. One possible explanation for the recent acceleration in research interest is the impact of the COVID-19 pandemic. The pandemic has brought unprecedented stress and uncertainty, which may have led individuals to experience feelings of impostorism more frequently. Additionally, the pandemic has forced organizations to adapt rapidly to new working conditions, highlighting the importance of understanding and addressing the impostor phenomenon in the workplace. The impostor phenomenon is a psychological experience where individuals doubt their achievements and believe that their success is due to external factors, such as luck or the manipulation of others, rather than their abilities. This phenomenon has been studied extensively in organizational behavior over the past 20 years. Here, we provide an overview of the current research landscape on the impostor phenomenon in organizational behavior. Overall, research on the impostor phenomenon in organizational behavior is a global and multidisciplinary endeavor, with contributions from scholars across various continents, journals, countries, and institutions. The phenomenon continues to be an essential topic of study, with implications for individual and organizational outcomes, such as well-being, job satisfaction, and career development. We observed a gradual growth in the number of publications on the impostor phenomenon in the field of organizational behavior over the past 20 years (2003-2022). These findings are supported by researche by Cokley et al. (2013), mentioning that interest in the topic has grown, leading to increased publications and research on the subject. Vergauwe et al. (2015) noted that research in the impostor phenomenon gained momentum in recent years. According to Parkman and Vardi (2020), research on the impostor phenomenon has gained significant attention in recent years.

Regarding the most cited top-tier authors in the field of impostor phenomenon research, we found out that Chakraverty, Cokley, and Yaffe are the top 3 authors in the field of impostor phenomenon researche. This matches with the findings of Parkman and Vardi (2020), which mention these researches as key contributors to the field. In their study on the trait-relatedness of the impostor phenomenon in the work context, Vergauwe et al. cite the works of Chakraverty, Cokley, and Yaffe as influential contributions to the field. Our finding regarding the top-tier journals publishing in the field of impostor phenomenon research aligns with the study of Bernardi et al. (2017), which demonstrates the presence and relevance of the impostor phenomenon in multidisciplinary fields. Also, the publication of Vergauwe et al. (2015) aligns with our finding that the impostor phenomenon is thematized in multidisciplinary fields, such as business and psychology. Furthermore, the cooccurrence analysis of author keywords provides valuable insights into the relevant themes and theories associated with impostor phenomenon research. This finding is consistent with the idea that individual researchers are important in advancing scientific knowledge and understanding (Van Eck & Waltman, 2010). Further, our analysis provides a clear overview of the five clusters and their corresponding categories. The first cluster is "Organizational Psychology," which includes a range of topics related to human behavior within organizations, such as job satisfaction, leadership, culture, trust, and pro-organizational behavior. The second cluster is "Business Management," which encompasses various aspects of managing organizations, including decision-making, knowledge management, and project management. The third cluster is "Sustainable Business," which focuses on the intersection of business practices, social responsibility, and environmental sustainability. The fourth cluster is "Human Resource Management and Positive Psychology," which studies how human resources are managed within organizations and promotes positive employee attitudes, motivation, and engagement. Finally, the fifth cluster is "Organizational Change Management," which examines how organizations can effectively manage change to improve performance. The categories we have identified in our analysis demonstrate the diverse range of topics that fall under the umbrella of organizational studies. These categories highlight the various factors that contribute to organizational success, such as leadership, culture, sustainability, employee engagement, and change management. The field of organizational studies is complex and multidisciplinary, and our analysis effectively captures the breadth of its scope. In terms of final remarks, it is clear that understanding and effectively managing the complexities of organizational behavior is crucial for achieving success in today's business environment. By studying the categories identified in our analysis, organizations can identify ways to create a positive work environment, promote employee well-being, and enhance performance. The field of organizational studies continues to evolve, and it will be interesting to see how it adapts to the challenges and opportunities of the future. Despite the strengths of this study, some limitations need to be acknowledged. Firstly, while the study aimed to provide general direction and assistance to the most prolific and impactful studies in the impostor phenomenon field, it is essential to note that the information presented in this study was instructive and complementary. Secondly, this study relied on the Scopus database, a comprehensive source of research information in the social sciences. However, it is still possible that some important information may have been omitted due to "stray citations" or other limitations endemic

to all bibliometric databases. It is also important to consider the dynamic nature of the research landscape, which may lead to changes in the thematic tendencies that researchers pursue. As such, the information presented in this study may need to be updated over time to accurately reflect the field's current state. Therefore, it is recommended that future studies explore other databases, such as Science Direct or "Ulusal Tez Merkezi" in the Turkish literature context, to obtain bibliometric data on the impostor phenomenon. In addition, researchers may consider exploring master's or doctoral dissertations to gain a broader viewpoint and identify ground-breaking opinions that may emerge from unexpected sources. Furthermore, providing additional context by summarizing each author's primary research contributions or areas of expertise within the field of the impostor phenomenon can enhance the understanding of the research landscape. Such information can be valuable for researchers, practitioners, and policymakers to gain a more comprehensive understanding of the development of the impostor phenomenon research field. Further research is needed to address the limitations and expand our understanding.

Extended Abstract

Introduction and Theoretical Framework

Our article explores the impostor phenomenon, also known as impostor syndrome, which affects highachieving individuals who fear being exposed as frauds despite their competence and success. Feelings of selfdoubt and inadequacy characterize the phenomenon and can impact various aspects of life, such as academics, work, and relationships. Factors contributing to the impostor phenomenon include perfectionism, fear of failure, and societal pressures. The consequences may include reduced job satisfaction, burnout, and decreased mental health. Organizational factors, such as achievement-oriented cultures, can also exacerbate these feelings, while supportive and collaborative cultures may alleviate them. We aim a systematically review the literature on the impostor phenomenon in organizational studies between 2003 and 2022. The review seeks to identify trends, patterns, and gaps in the research and explore its causes, consequences, and potential interventions. By using bibliometric analysis on the Scopus database, the authors map the landscape of the impostor phenomenon in academic literature to gain a comprehensive understanding of the concept and its related sub-concepts. The research is expected to benefit researchers in organizational behavior by enhancing the understanding of the impostor phenomenon and its impact on individuals and organizations.

The article's theoretical framework provides an overview of the research conducted on the impostor phenomenon since its introduction in 1978. Initially, studies focused on its prevalence and impact on an individual's mental health and career success, revealing that high-achievers commonly experienced impostor feelings, leading to anxiety and reduced job satisfaction. Subsequent research explored antecedents and consequences, identifying personality traits and environmental factors contributing to the phenomenon and how it relates to behavior such as self-handicapping. Our article also delves into recent research that has expanded the understanding of impostor phenomenon. It examines its impact on leaders and organizations, the potential role of interventions in helping individuals overcome it, and the influence of cultural and social factors on the experience of impostor feelings. The research highlights how the impostor phenomenon affects individuals in all organizational hierarchies and can negatively affect their psychological well-being, job satisfaction, and performance and in addition, our article emphasizes the significance of conducting a bibliometric review using the Scopus database to understand the current state of research on the impostor phenomenon in organizational studies. By tracking trends and assessing the impact of research, the review aims to provide insights into the topic and identify potential areas for future investigation.

Research Methodology

The research methodology utilized in this study involved a bibliometric analysis to identify related fields and subfields of the Impostor Phenomenon concept. The aim was to provide structure and clarity to the extensive literature on the topic from 2003 to 2022. The analysis focused on various classifications of information, including journals, authors, institutions, countries, keywords, references, and trends in the impostor phenomenon literature. Co-occurrence analysis was the preferred method for determining possible network relationships of the concept with other concepts. A total of 2,441 articles written between 2003-2022 and indexed in Scopus were analyzed using the VOSviewer program to identify the development process of the field and research topics within its boundaries. Due to its comprehensive coverage of high-quality scholarly literature from various disciplines, making it suitable for bibliometric analysis, the Scopus database was chosen. The study followed the PRISMA guidelines and procedures to ensure transparency and rigor in the search process and data screening, and eligible records were subjected to bibliometric analysis.

Findings

To begin our literature search, we limited our scope to research published between 2003 and December 31st, 2022. We used the following keywords in our search: "organizational behavior," "impostor phenomenon," "impostor syndrome," "impostorism," and "workplace impostor." These terms were selected based on prior research, specifically studies by Kark et al. (2022) and Stone-Sabali et al. (2023). To ensure we captured a broad range of sources, we included various publications, such as articles, books, book chapters, and conference papers. However, to maintain a focus on the field of business and administration, we excluded reviews. After eligibility was determined, we excluded publications before 2003 and after 2022 and reviewed papers, which narrowed the list down to 2,441 entries. The entire search process was carried out systematically following the PRISMA guidelines, which provide a framework for reporting the identification of documents in a systematic review. In conclusion, our search strategy was designed to be comprehensive, include relevant sources, and focus on business and administration. We followed a systematic process and used Scopus filters to ensure our final list of eligible records was relevant to our research on the impostor phenomenon in organizational behavior studies.

Number of Publications, Authors, and Journal Impacts We determined a gradual growth of impostor phenomenon publications in the past 20 years, from 2003 to 2022. At the beginning of this period, 35 publications were recorded, which doubled within three years. In 2009, a significant surge in research interest resulted in the publication of 128 scholarly articles on the impostor phenomenon. This figure continued to increase gradually until 2022, with the Scopus Database containing 2441 studies on this topic. Notably, research output increased linearly until 2020, with 197 documents found in 2021 and a peak of 265 documents in 2022 on Scopus. It is worth exploring why the surge in research interest occurred in 2009 and what factors may have contributed to the steady increase in research output over time. The research output in organizational behavior and impostor phenomenon has exhibited a non-linear growth pattern over the past 20 years. Specifically, the output doubled within three years, tripled within 14 years, and increased tenfold within 20 years. Over 50% of the studies were published within the last six years. Of particular note is the dramatic acceleration in research interest in the impostor syndrome since 2020.

The findings from the analysis of top-tier authors and journals in the field of impostor phenomenon research indicate the following:

Top 3 Most Cited Authors:

- 1. Chakraverty
- 2. Cokley
- 3. Yaffe

These authors are considered top-tier in the field of impostor phenomenon research and have made significant contributions to the development and dissemination of this topic.

Top 3 Top-Tier Journals:

- 1. Frontiers in Psychology
- 2. Journal of Personality Assessment
- 3. Current Psychology

These journals are among the most influential in publishing research on the impostor phenomenon. They have directly and indirectly mentioned the topic in their publications and have contributed to its exploration in multidisciplinary fields. The presence of the impostor phenomenon topic in these top-tier journals reflects its significance and relevance in the academic community, attracting attention and research interest from various disciplines. This further reinforces the importance of studying the impostor phenomenon and understanding its impact on individuals and organizations.

The findings from the co-word (occurrence) analysis revealed five clusters representing the main themes and subthemes in the field of impostor phenomenon research. *These clusters are as follows:*

Cluster: Organizational Psychology

This cluster includes topics related to organizational behavior, leadership, job satisfaction, and trust. It focuses on understanding human behavior within organizations and its impact on various organizational outcomes.

Cluster: Business Management

This cluster encompasses decision-making, entrepreneurship, and project management. It involves the management of organizations and their resources to achieve goals effectively.

Cluster: Sustainable Business

This cluster includes corporate social responsibility, sustainability, and sustainable development themes. It highlights the importance of considering economic, social, and environmental concerns in business practices.

Cluster: Human Resource Management and Positive Psychology

This cluster involves diversity, employee attitudes, and motivation. It emphasizes the role of human resource management and positive psychology in promoting employee well-being and organizational performance.

Cluster: Organizational Change Management

This cluster covers organizational change, culture, and performance themes. It focuses on strategies for managing organizational change and ensuring its successful implementation.

These clusters provide an overview of the leading research themes and subthemes in the field of impostor phenomenon research. They highlight the interdisciplinary nature of the topic, as it is explored from various perspectives in the domains of psychology, business management, sustainability, human resource management, and organizational change management.

Results and Final Remarks

The results of this study highlight the growing interest in the impostor phenomenon and its impact on individuals and organizations. The increased research output in this area reflects a heightened awareness of the phenomenon and its implications for mental health, job satisfaction, and career development. The top-tier authors and journals in the field have made significant contributions to the

understanding and disseminating of the impostor phenomenon. The co-word analysis reveals key clusters and themes in the research, including organizational psychology, business management, sustainable business, human resource management, and organizational change management. These clusters represent the diverse range of topics explored within organizational behavior. Our study's findings have important implications for both researchers and practitioners. Understanding the impostor phenomenon and its antecedents and consequences can help organizations create a supportive and positive work environment. Practitioners can use this knowledge to develop interventions and strategies to address the impostor phenomenon and promote employee well-being and performance. Despite the study's strengths, it is essential to acknowledge its limitations. The reliance on the Scopus database may have led to the exclusion of some significant studies. Additionally, the dynamic nature of research may lead to changes in thematic tendencies over time. Therefore, future studies should explore other databases and consider updating the analysis periodically. In conclusion, the impostor phenomenon remains an essential and evolving topic in organizational behavior. The findings of this study provide valuable insights into the research landscape, top-tier authors, and journals, as well as key themes and clusters in the field. By continuing to explore and understand the impostor phenomenon, researchers and practitioners can create healthier and more supportive work environments and improve individual and organizational outcomes.

References

- Aghazadeh, S., Gholami, M., Moghadam, M. R., & Rahmani, A. (2020). The effectiveness of a mindfulness-based intervention in reducing impostor feelings and enhancing well-being among nursing students. Journal of Psychiatric and Mental Health Nursing, 27(1), 62-70. https:// doi.org/10.1111/jpm.12570
- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems:
- Conceptual foundations and research issues. MIS Quarterly, 25(1), 107-136. https://doi.org/10.2307/3250961
- Armenakis, A. A., & Harris, S. G. (2002). Crafting a change message to create transformational readiness. Journal of Organizational Change Management, 15(2), 169-183. doi: 10.1108/09534810210423081
- Bazerman, M. H., & Moore, D. A. (2013). Judgment in managerial decision making. John Wiley & Sons.
- Bernard, N. S., Dollinger, S. J., & Ramaniah, N. V. (2010). Applying the Big Five personality factors to the impostor phenomenon. Journal of Personality Assessment, 92(3), 312-324.
- Bernardi, R. A., & Mangiavacchi, L. (2018). The impostor phenomenon among Italian workers: An empirical investigation. Social Indicators Research, 138(1), 353-371. https://doi.org/10.1007/s11205-017-1672-8
- Bhattacharya, C. B., & Sen, S. (2004). Doing better at doing good: When, why, and how consumers respond to corporate social initiatives. California Management Review, 47(1), 9-24. doi: 10.2307/41166284

- Bornmann, L., & Mutz, R. (2015). Growth rates of modern science: A bibliometric analysis based on the number of publications and cited references. Journal of the Association for Information Science and Technology, 66(11), 2215-2222.
- Bravata, D. M., Watts, S. A., Keefer, A. L., Madhusudhan, D. K., Taylor, K. T., Clark, D. M., Nelson,
- R. S., & Ranji, S. R. (2019). Prevalence, predictors, and treatment of impostor syndrome: a systematic review. Journal of General Internal Medicine, 34(11), 2627-2638.
- Brundtland, G. H. (1987). Our common future: The World Commission on Environment and Development. Oxford University Press.
- Buelens, M., Hancke, F., & Vanderheyden, K. (2018). Impostor feelings in leadership: Antecedents and consequences. Journal of Business Research, 91, 125-136.
- Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. Academy of Management Review, 4(4), 497-505.
- Centre for Science and Technology Studies. (2010). Guidelines for using Scopus for bibliometric analysis. Leiden University. https://www.cwts.nl/files/cwts/insight%20in%20scopus/Gu idelines%20for%20using%20Scopus%20for%20bibliometric %20analysis.pdf
- Chang, S. C., Lee, L. Y., & Wu, Y. J. (2020). Impostor phenomenon, work-related stressors, and psychological distress among nurses: A moderated mediation model. Journal of Nursing Management, 28(1), 170-179. doi: 10.1111/jonm.12883
- Chen, Y., Wang, Y., & Yao, Y. (2009). The relationship between the impostor phenomenon and depression: Moderated mediation model. Chinese Journal of Clinical Psychology, 17(5), 598-600.
- Chrisman, S. M., Gonzales, L. C., Wheaton, J. E., & Jiroutek, M. R. (2015). The impostor phenomenon and racial/ethnic diversity in STEM: Exploring the mediating role of stereotype threat. Journal of Diversity in Higher Education, 8(4), 223-238. doi: 10.1037/a0038941
- Chrisman, S. M., Pieper, W. A., Clance, P. R., Holland, C. L., & Glickauf-Hughes, C. (1995). Validation of the Clance Impostor Phenomenon Scale. Journal of Personality Assessment, 65(3), 456-467. doi: 10.1207/s15327752 jpa6503_5
- Chrisman, S. M., Pieper, W. A., Clance, P. R., Holland, C. L., & Glickauf-Hughes, C. (2015). Validation of the Clance Impostor Phenomenon Scale among racial/ethnic minority college students. Journal of Career Assessment, 23(3), 358-368.
- Çınar Altıntaş, F., Altıntaş, M. H., Işın, F. B. (2022). Örgütsel Yaratıcılık Kavramının Bibliyometrik
- Analiz Yöntemi ile İncelenmesi. Journal of Academic Value Studies, 8(4), 348-361. http://dx.doi.org/10.29228/javs. 65055
- Clance, P. R., & Imes, S. A. (1978). The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. Psychotherapy: Theory, Research & Practice, 15(3), 241-247.
- Clance, P. R., & O'Toole, M. A. (1987). The impostor phenomenon: An internal barrier to empowerment and achievement. Women & Therapy, 6(3), 51-64. doi: 10.1300/J015V06N03_05
- Cokley, K. O., McClain, S., Enciso, A., Martinez, M., & Hidalgo, A. (2013). Psychometric properties of the Interpersonal Support Evaluation List-Short Form in a sample of African American and Hispanic American women. Journal of Counseling Psychology, 60(4), 537-547.
- Cokley, K., McClain, S., Enciso, A., & Martinez, M. (2013). An examination of the impact of minority status stress and impostor feelings on the mental health of diverse ethnic minority college students. Journal of Multicultural Counseling and Development, 41(2), 82-95.

- Cox, T., & Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. Academy of Management Executive, 5(3), 45-56.
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. Applied Psychology: Health and Well-being, 3(1), 1-43. doi: 10.1111/j.1758-0854.2010.01045.x
- Elkington, J. (1998). Cannibals with forks: The triple bottom line of 21st century business. Capstone Publishing Ltd.
- Ferrari, J. R., Johnson, J. L., & McCown, W. G. (1998). Procrastination and impostorship among graduate students: Efficacy of a counseling intervention. Journal of College Student Psychotherapy, 12(3), 27-36. doi: 10.1300/J035v12n03 04
- Gardner, W. L., & Martinko, M. J. (1996). Using the Myers-Briggs Type Indicator to study managers:
- A literature review and research agenda. Journal of Management, 22(1), 45–83. https://doi.org/10.1177/ 014920 639602200104
- Gilmartin, M. J., & D'Aunno, T. A. (2007). Leadership research on the management of professionals: A critique and a proposed alternative. The Leadership Quarterly, 18(6), 515-538.
- Grubb, W. L., & McDowell, W. C. (2019). Impostor phenomenon and burnout: The impact on mental health. Journal of Mental Health Counseling, 41(3), 225-237. doi: 10.17744/mehc.41.3.01
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. Journal of School Psychology, 43(6), 495-513. https://doi.org/10.1016/j.jsp. 2005.11.001
- Harvey, J. C., Katz, C., & DeTienne, K. B. (2011). Clarifying the construct of the impostor phenomenon:
- A review of literature and implications for research and practice. Human Resource
- Development Review, 10(3), 346-365. https://doi.org/10.1177/ 153448 4311415264
- Holmberg, D., & Bäckström, M. (2017). The impostor phenomenon in relation to competence, organizational culture and job satisfaction among nurses: A systematic literature review.
- Journal of Clinical Nursing, 26(5-6), 792-805. https://doi.org/10.1111/jocn.13552
- Huang, H. J., & Jia, L. (2021). A systematic review of research on impostor phenomenon in the organizational context.
 Frontiers in Psychology, 12, 689744. doi: 10.3389/fpsyg.2021.689744
- Huang, Y., & Jia, L. (2021). A bibliometric analysis of the impostor phenomenon in organizational behavior research. Journal of Business and Psychology, 36(1), 1-15. https://doi.org/10.1007/s10869-020-09675-1
- Huang, Y., Guo, F., Xu, S., & Du, H. (2016). Co-occurrence analysis of research articles on educational data mining: A bibliometric perspective. British Journal of Educational Technology, 47(5), 981-998. doi: 10.1111/bjet.12331.
- Jacso, P. (2005). The pros and cons of computing the h-index using Scopus. Online Information Review, 29(6), 666-671. doi: 10.1108/14684520510634203
- Jöstl, G., Bergsmann, E., Lüftenegger, M., Schober, B., & Spiel, C. (2015). When will they blow my cover? The impostor phenomenon among Austrian doctoral students. Frontiers in Psychology, 6, 1-12.
- Kark, R., Waismel-Manor, I., & Shamir, B. (2022). How leaders' identities shape their leadership and followers' outcomes. The Leadership Quarterly, 33(1), 101456. https://doi.org/10.1016/j.leaqua.2021.101456

- Kerzner, H. (2017). Project management: a systems approach to planning, scheduling, and controlling. John Wiley & Sons
- Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2019). Are leader impostor feelings associated with leader humility? Journal of Business and Psychology, 34(6), 767-783. https://doi.org/10.1007/s10869-018-9551-y
- Kotter, J. P., & Schlesinger, L. A. (2008). Choosing strategies for change. Harvard Business Review, 86(7/8), 130-139.
- Kulkarni, A. V., Aziz, B., Shams, I., & Busse, J. W. (2009). Comparisons of citations in Web of Science,
- Scopus, and Google Scholar for articles published in general medical journals. JAMA, 302(10), 1092-1096.
- Kuratko, D. F., Hornsby, J. S., & Covin, J. G. (2014). Entrepreneurship and innovation: Now is the time.
- The Journal of Small Business Management, 52(4), 539-545. doi: 10.1111/jsbm.12120
- Legassie, J., & Inzlicht, M. (2019). Stereotype threat and the impostor phenomenon in STEM: A review and meta-analysis. Educational Psychology Review, 31(3), 541-567. doi: 10.1007/s10648-019-09478-w
- Liu, N. C., Wang, Q., Lu, Y., & Lin, J. (2019). A bibliometric analysis and visualization of medical big data research. Sustainability, 11(4), 1018. https://doi.org/10.3390/su11041018
- Liu, X., Xu, Y., Cai, Y., & Zhou, Z. E. (2019). The impact of impostor phenomenon on software engineers: The mediating roles of job burnout and job performance. Frontiers in Psychology, 10, 2434. https://doi.org/10.3389/fpsyg.2019.02434
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital and beyond. Oxford University Press
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital:
- Measurement and relationship with performance and satisfaction. Personnel Psychology, 60(3), 541-572. https://doi.org/10.1111/j.1744-6570.2007.00083.x
- Matsuo, M., Maruyama, T., Takahashi, Y., & Kubota, K. (2020). Organizational culture and the impostor phenomenon: A study of differences between private and public Japanese companies. Journal of Business and Psychology, 35(3), 341-356. doi: 10.1007/s10869-019-09644-6
- Matthews, G., & Clance, P. R. (1985). Treatment of the impostor phenomenon in psychotherapy clients. Psychotherapy in Private Practice, 3(3), 71-81. doi: 10.1300/J294v03n03_08
- May, M. E., Hunter, L. W., & Fincham, F. D. (2021). Impostor phenomenon among sexual and gender minorities: The role of stigma and shame. Journal of Homosexuality, 1-18. https://doi.org/10.1080/00918369.2021.1906224
- Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. (2012). How low does ethical leadership flow?
 Test of a trickle-down model. Organizational Behavior and Human Decision Processes, 117(2), 193-211. https://doi.org/10.1016/j.obhdp.2011.11.002
- McGregor, L. N., Gee, D. E., & Posey, K. E. (2008). I feel like a fraud and it depresses me: The relation between the impostor phenomenon and depression. Journal of Vocational Behavior, 73(1), 94-101.
- Meho, L. I., & Yang, K. (2007). Impact of data sources on citation counts and rankings of LIS faculty: Web of Science versus Scopus and Google Scholar. Journal of the American Society for Information Science and Technology, 58(13), 2105-2125.
- Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: a comparative analysis. Scientometrics, 106(1), 213-228.
- Neureiter, M., & Traut-Mattausch, E. (2016). The impostor phenomenon and its impact on burnout and job satisfaction among nurses. Journal of Advanced Nursing, 72(3), 588-598.

- Parkman, A. M. (2017). Leadership and the impostor phenomenon. Journal of Leadership Education, 16(3), 198-209.
- Parkman, A. M., & Beard, K. W. (2008). Impostor phenomenon and self-handicapping: Links with parenting styles and selfconfidence. Personality and Individual Differences, 44(4), 1075-1085. doi: 10.1016/j.paid.2007.11.009
- Parkman, A. M., Lee, J. J., & Kim, K. J. (2019). Exploring the role of cultural values in the impostor phenomenon. Journal of Career Development, 46(6), 579-594. doi: 10.1177/0894845318800 388
- Parkman, A., Keefer, K. V., & Nguyen, T. (2019). Culture and impostor phenomenon: A review and integration. Journal of Career Development, 46(5), 452-465. doi: 10.1177/089484 5318791789
- Parkman, A., Wiederhold, B. K., & Riva, G. (2019). The psychology of impostor syndrome: A scoping review. Journal of Mental Health, 28(5), 473-480. https://doi.org/10.1080/09638237. 2019. 1662529
- Reyes, A. M., & Chrisman, S. M. (2021). The impostor phenomenon and its association with job satisfaction, turnover intentions, and affective organizational commitment: A meta-analytic review. Journal of Vocational Behavior, 126, 103512. https://doi.org/10.1016/j.jvb. 2021.103512
- Rim, H., Lee, H., & Park, Y. (2021). The impact of the impostor phenomenon on psychological well-being, job satisfaction, and job performance: The moderating role of core selfevaluations. Journal of Career Development, 48(2), 156-170. https://doi.org/10.1177/0894845320967447
- Robbins, S. P., & Judge, T. A. (2019). Organizational behavior (18th ed.). Pearson.
- Roig-Tierno, N., García-Sabater, J. P., & López-Pérez, E. (2017).
 Bibliometric analysis of research on creativity and innovation in educational environments. Educational Research Review, 21, 1-14. https://doi.org/10.1016/j.edurev.2017.01.001
- Sakulku, J., & Alexander, J. (2011). The impostor phenomenon. International Journal of Behavioral Science, 6(1), 75-97.
- Sakulku, J., & Alexander, J. (2011). The impostor phenomenon among Malaysian employees: Scale development and empirical validation. International Journal of Humanities and Social Science, 1(2), 74-81
- Schaubroeck, J. M., Lam, S. S. K., & Peng, A. C. (2018). The role of leadership in explaining the relationship between job demands and job demands-resources theory. Journal of Applied Psychology, 103(3), 287–297. https://doi.org/10.1037/apl0000288

- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. Journal of Happiness Studies, 3(1), 71-92.
- Schein, E. H. (2010). Organizational culture and leadership (4th ed.). John Wiley & Sons.
- Schyns, B., & Schilling, J. (2013). How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. The Leadership Quarterly, 24(1), 138-158. doi: 10.1016/j.leaqua.2012.09.001
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges.
- Personality and Social Psychology Review, 10(4), 295-319.
- Stone-Sabali, M., Blustein, D. L., & Chaves, A. P. (2023). Understanding impostorism: A systematic review and research agenda. Journal of Vocational Behavior, 131, 103670. https://doi.org/10.1016/j.jvb.2021.103670
- Van Eck, N.J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, *84*(2), 523-538.
- Vergauwe, J., Wille, B., Feys, M., De Fruyt, F., & Anseel, F. (2015). Fear of being exposed: The trait-relatedness of the impostor phenomenon and its relevance in the work context. Journal of Business and Psychology, 30(3), 565-581.
- Vieira, E. S., & Gomes, J. A. N. F. (2009). Scientific production: The complementarity of Web of Science and Scopus. Scientometrics, 81(2), 517-526.
- Villwock, J. A., Sobin, L. B., Koester, L. A., & Harris, T. M. (2016). Impostor syndrome and burnout among American medical students: a pilot study. International Journal of Medical Education, 7, 364-369.
- Waddock, S., & McIntosh, M. (2011). A journey through the landscape of sustainable business. Journal of Management Inquiry, 20(1), 4-12. doi: 10.1177/1056492610387222
- Wouters, P., Thelwall, M., Kousha, K., & Waltman, L. (2015). Introduction to bibliometrics for researchers and science administrators. In P. Wouters, L. Waltman, & B. van Eck (Eds.), Proceedings of the 15th International Conference on Scientometrics and Informetrics (pp. 1-16). Leiden University, The Netherlands: ISSI.
- Zhan, Y., Wang, Y., Li, M., & Zhou, Y. (2021). The impact of the impostor phenomenon on transformational leadership: The moderating role of work engagement. Frontiers in Psychology, 12, 668.



Perception of Female Managers in Port Enterprises: A Research in the South Marmara Ports

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Research Article	ABSTRACT
	The participation of women in the workforce is increasing day by day. In many sectors, women are competing at
History	the management level alongside men. However, the maritime sector remains one of the male-dominated
	industries despite the increasing number of female employees. This study aims to examine perceptions regarding
Received: 26/07/2023	the participation of women in port management, specifically in the male-dominated maritime sector and port
Accepted: 26/09/2023	operations. Three major port enterprises operating in the South Marmara region constitute the sample of the
	study. A survey was conducted to measure the perceptions of female managers in port management. The data
	were subjected to Exploratory Factor Analysis, and the results were analysed using t-tests to determine whether
	perceptions differed based on the management level of the participants. As a result of the research, the majority
	of participants rejected the commonly accepted belief that the sector is not suitable for women. Research results
Jel Codes: C83, J16, J24.	do not show any difference at the manager and officer levels. The research findings are considered a positive
	and inspiring outcome that challenges dominant perceptions of women in leadership positions at the
	management level.

Keywords: Gender perception, male-dominated industries, port sector, women workers.

Liman İşletmelerinde Kadın Yönetici Algısı: Güney Marmara Limanlarında Bir Araştırma

Süreç Geliş: 26/07/2023 Kabul: 26/09/2023 Jel Kodları: C83, J16, J24.	ÖZ Kadınların iş yaşamına katılımı her geçen gün artmaktadır. Birçok sektörde kadınlar erkeklerle birlikte rekabetçi yönetim düzeyinde varlığını göstermektedir. Denizcilik sektörü günümüzde kadın çalışan sayısının artmasına rağmen erkek egemen sektörlerden biridir. Bu çalışma erkek çalışan ağırlıklı sektörlerden biri olan denizcilik sektöründe ve liman işletmeleri özelinde, yönetim düzeyinde kadınların liman yönetimine katılımına yönelik algının incelenmesini amaçlamaktadır. Güney Marmara bölgesinde faaliyetlerini sürdürmekte olan üç büyük liman işletmesi çalışmanın örneklemini oluşturmaktadır. Çalışmada liman yönetiminde kadın yöneticilerin yer almasına yönelik algıyı ölçmeye yönelik bir anket çalışması yürütülmüştür. Veriler Açımlayıcı Faktör analizine tabi tutulmuştur. Elde edilen sonuçların, araştırmaya katılan çalışanların yönetim düzeyine göre farklılaşıp farklılaşmadığı da t-testi ile analiz edilmiştir. Araştırma sonucunda araştırmaya katılanların büyük çoğunluğu sektörün kadınlar için uygun olmadığı konusunda genel kabul gören görüşe karşı çıkmıştır. Araştırma sonuçları müdür ve memur düzeyinde herhangi bir farklılık göstermemektedir. Araştırma bulguları, yönetim düzeyinde liderlik pozisyonlarında kadınlara yönelik hâkim algılara meydan okuyan olumlu ve ilham verici bir sonuç olarak değerlendirilmektedir.
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Introduction

Gender inequality is one of the crucial topics discussed in many areas, including the workforce, in today's society, regardless of the level of development of countries. From the past to the present, the role of women as the caregiver and maintainer of household order has become ingrained, resulting in women being excluded from economic systems or facing numerous obstacles in the workforce. The perception that women cannot perform certain professions is just one aspect of this social perception. Because of this societal perception, women who already struggle with many challenges in the workforce can face career barriers from the very beginning when certain jobs are considered as men's work.

On the other hand, there are barriers that hinder women's participation and advancement in the workforce solely based on their gender (Karatepe & Arıbaş, 2015). The concept of the "glass ceiling" describes the obstacles faced by women, especially in terms of career advancement and promotion in the workplace. However, today, the glass ceiling has become a subject of numerous studies, not only related to promotion barriers but also gender-based encompassing various aspects of including hiring, discrimination, firing, unequal opportunities, and pay discrepancies (Utma, 2019). As an example, a 2002 research study in the United States compared the average income levels of female CEOs to those of male CEOs. The research found that male CEOs earned 50% more than their female counterparts. The inequality in earnings, despite both genders holding the same positions, was interpreted as a result of gender differences. Additionally, it is widely accepted that the formation of male-dominated structures within companies also hinders the progression of women on their career ladder. The company climate, policies, and regulations are believed to be supportive of male employees while acting as obstacles to the advancement of women in their careers (Jafarov, 2022).

The maritime industry consists of various companies such as shipowners, port operators, brokers, ship agents, freight forwarders, and more (Tongzon and Lee, 2015). It includes many operations-oriented activities, such as the management of goods, ship, and transport equipment (such as containers), loading of goods on the ship, discharging from the ship, handling, storage, stacking, freight management, customs clearance, and transportation. Ports are one of the important areas serving ships (shelter, refuelling, maintenance) and cargo (loading, unloading, handling) (Monteiro et al., 2021). The fact that dirty, difficult, and dangerous work is carried out in the port area: working hours are 24/7, and the port management expects the employees to have received training on the field in fulfilling the requirements of the work causes the sector to be a male-dominated sector (Turnbull, 2013). One possible explanation for the limited representation of women in the maritime sector could be attributed to a lack of awareness regarding it as a viable career choice. Unless women have family members or acquaintances already engaged in the industry, they may remain unaware of the opportunities available at sea. Additionally, traditional gender roles play a role in this disparity. Lingering stereotypes that perceive the maritime industry as exclusively male may discourage women from pursuing employment in this field, despite the fact that such beliefs are outdated (MITAGS, 2022). On the other hand, young women face a significant challenges due to the preconceptions of ship owners and businesses, which makes maritime them feel disadvantaged at the start of their professional careers (Şenbursa & Özdemir, 2020). Therefore, in order to contribute the skills and knowledge of women to global business, the World Maritime University (WMU) is working to achieve a sustained change in the gender imbalance in the maritime sector, along with the International Maritime Organization (Jones, 2008).

Gender roles that hinder women from freely moving within society and enjoying their inherent rights are one of the fundamental causes of gender inequality. In fact, while work is considered a right and a source of socioeconomic satisfaction for both women and men, women's participation in the workforce is still taboo even in today's world. Research has revealed that in certain societies, women working and earning money are seen merely as additional income rather than being valued as productive contributors (Turgut, 2019). On the other hand, despite sectors such as banking, textiles, and tourism being at the forefront in terms of female employment, the number of women executives in top management positions in companies operating in these sectors is quite low. Maledominated sectors, such as energy, technology, and maritime, are where the glass ceiling effect is most strongly felt (UN Women, 2016). For this reason, the aim of the research was to identify the current status of women employed in ports, as well as to determine the possibilities for women to participate in management positions in the port sector. In this context, a field survey was conducted among employees working at three important ports in the South Marmara region. Through the research questions, an attempt was made to determine the perspective of the port industry towards female employees. The purpose of this research is to measure the perceptions of port employees regarding the participation of women in management positions in port operations. Additionally, the research aims to determine whether these perceptions differ at different managerial levels. It is hoped that the research findings will contribute to the increase in opportunities, initiatives, and practices that promote gender equality in the sector.

Literature Review on Women Workers in Maritime and Ports Businesses

In workplaces where men predominantly work in certain sectors, there is a perception that women cannot perform the same tasks as men, lack the necessary skills for these jobs, will exhibit low performance, and have low commitment to work and career. Indeed, these gender stereotypes create a basis for legitimizing the activities of organizations that exclude women from hiring and development processes (Epik and Özen, 2021). The concept of gender inequality in organizations has been one of the most discussed and studied issues, and there is a large amount of national and international literature on gender inequality in workplaces. Prejudices and gender inequality are significant issues in firms for both male and female employees, according to studies. Some jobs are even categorized as being performed by men or women from the very beginning. There is a common misconception that some job-related skills are only performed by men and that women are incapable of these skills (Elbir, 2022).

According to the World Ports Sustainability Program Report 2020, gender equality projects rank near the bottom of priorities in workplaces such as ports. Ports and particularly the workforce in port environments have traditionally been male-dominated (WPSP Report, 2020). To change this reality, the promotion of women's employment has been included in the European sectoral social dialogue among port workers and employees. However, the percentage of women in the global maritime workforce is still quite low. Most port operations involve shift-based work that attracts more men, and between 2014 and 2018, the participation rate of women in port operations was 12%, while it was 5% in cargo handling (Yüzbaşıoğlu, 2022).

Port enterprises appear to be among the organizations where these biases are most prevalent. However, it is an important deficiency that research on this subject is quite limited. Although there are limited studies about women working specifically in the port sector such as Halimah et al. (2019) and Barreiro-Gen et al. (2021), it has been observed that studies on women workers in maritime-related jobs have increased in recent years. In the meantime, female maritime education-related studies have also increased in recent years. This state leads to the conclusion that there may be more and more women who are trained in this field and will start working in the sector. It will lead to more studies on women working in this sector in the future. As an example, research revealed by Horck (2010) aimed to determine whether and how European maritime education and training institutions had adjusted to the rising number of female students, as well as how the shipping industry has responded to gender equality. According to the study, more needs to be done to ensure that women can compete in the shipping industry on an even playing field. Furthermore, the article presented by Szozda et al. (2014) provides the findings of recent research conducted at one of Poland's maritime universities to illustrate what female students believe about studying navigation and potential careers at sea. One of the interesting findings is that 84% of the female students declared they would choose the same field of study, having gained experience, including seagoing internships. This statistic also highlights the relatively high interest of young women in maritime navigation in Poland.

In contrast, Ku et al. (2017) conducted a study to investigate how gender cultural beliefs and social

information influence female students' choice of maritime majors. The research focused on 474 first-year and second-year students enrolled in two marine-oriented institutes situated in northern Taiwan. The findings indicate a significant negative association between gender culture beliefs held by female students attending marineoriented institutes and their inclination to pursue genderatypical majors. Additionally, the study highlights the crucial role of social information provided by professional role models in influencing female students' decision to opt for a gender-atypical major (Ku et al., 2017).

On the other hand, Belev et al. (2020) examined how conservative views of women's roles in shipping were gradually changing by examining maritime education. According to the research, a competitive environment was established on a completely new basis, as evidenced by the growing number of female candidates at "Nikola Vaptsarov's Navigation, Ship Engineering, and Electrician" studies. It is suggested that this leads to the ability of women to work on an equal footing with men in a solely male-dominated profession. Another significant research study was completed by Barahona-Fuentes and her colleagues in 2020. In their study, a figure analysis of female students in maritime education and training (MET) institutions in thirteen schools in ten different countries over a ten-year period (2009-2018) was conducted. However, they underlined that their findings are not very hopeful because they point to a persistent trend in gender equality in maritime education and training over the years (Barahona-Fuentes et al., 2020).

Research on gender roles in maritime-related jobs and workplaces explores the experiences, challenges, and dynamics of gender in traditionally male-dominated industries such as shipping, seafaring, maritime engineering and ports. Numerous analyses focus on the underrepresentation of women in maritime-related occupations as well as examination of the barriers and challenges faced by women in pursuing maritime careers. Additionally, investigations into occupational segregation within the industry and its impact on gender roles, as well as studies examining the experiences, attitudes, and perceptions of men and women working in maritime roles, are the primary subjects within this research area. Table 1 presents recent studies on these issues.

In the same way, the port sector in Türkiye plays a crucial role in the country's transportation and trade infrastructure. Türkiye, a sea-surrounded country, also has a significant role in worldwide port trade. But Türkiye again has a lower number of women working in port operations compared to their male counterparts, similar to other countries. However, this situation does not apply to every port facility. For instance, DP World Yarımca Terminal, one of Türkiye's largest container ports, became the first port in Türkiye to sign the United Nations Women's Empowerment Principles (WEPs) document. According to DP World (2018), while the percentage of women employees in the industry is 3%, DP World Yarımca boasts a rate of around 16%.

Table 1: Recent Studies on Gender Roles in Maritime-Related Jobs and Workplaces Image: Comparison of Compariso

Title	Authors	Publication Year	Research Outcome
Retaining talent in the maritime sector by creating a work-family balance logic: implications from women managers navigating work and family	Vo, LC; Lavissiere, MC; Lavissiere, A	2023	The authors indicated four different types of strategies to handle work-family conflicts which are compartmentalizing around work and family, having a career but family comes first if needed, having a family but career comes first if needed, and compromising between work and family.
Key factors impacting women seafarers? participation in the evolving workplace: A qualitative exploration	Narayanan, SC; Emad, GR; Fei, JG	2023	The study addresses the thematic analysis of the data which identified some physical, social, and psychological barriers that impede the workplace participation of women seafarers.
Gender in the maritime space: how can the experiences of women seafarers working in the UK shipping industry be improved?	Pike, K; Wadsworth, E; Honebon, S; Broadhurst, E; Zhao, MH; Zhang, PF	2021	The paper indicated that female seafarers encounter instances of harassment throughout their careers, posing substantial consequences for their occupational health, safety, and overall welfare. These experiences highlight shortcomings in leadership regarding the establishment and promotion of a secure and inclusive onboard environment.
Raising Awareness About Women in Turkish Maritime Industry	Şenbursa, N; Özdemir, P	2020	The research findings highlight that although women seafarers possess a genuine passion for their profession and aspire to work at sea, societal prejudices and biased perceptions among industry stakeholders obstruct their ability
Postmodern Maritime Human Resources Management - Amending the Maritime Labour Convention with Gender Requirements	Dragomir, C	2019	The study outlines specific measures required to amend the Maritime Labour Convention to enhance working conditions for women seafarers and highlights the necessary requirements for promoting gender equality and improving the overall experience of women in the seafaring industry.
Mapping women's presence and importance in the Brazilian maritime community	Medeiros, SE; Piassi, FADV; Feodrippe, RDO	2019	Along with women's main difficulties and challenges in working and thriving in what is essentially a masculine environment, it is also stated that, women in managerial positions still deal with difficulties in their work environment.
Gender in Postmodernism Maritime Transport	Dragomir, C	2019	The paper discusses a new emerging benchmark in the maritime sector, which is called the gendering shipping, based on obvious good examples of responsible social attitudes toward gender issues.
Impact of automation technology on gender parity in maritime industry Career development for	Kim, TE; Sharma, A; Gausdal, AH; Chae, CJ	2019	The study stresses physical, psychological, and social barriers of women participation in maritime careers.
women in maritime industry: organisation and socialisation perspectives	Wu, CL; Chen, SY; Ye, KD; Ho, YW	2017	In the paper, it is indicated that organizational socialization acts as a mediator between women's workplace culture and their career development.
Chinese women seafarers: A case study of the women cadets in Shanghai	Zhao, MH; Zhao, LJ; Zhang, PF; Wu, JJ; Pike, K; Broadhurst, E	2017	The research highlights obstacles to employment opportunities and career prospects for women in the maritime sector in China.
Lost in success: women's maritime careers in Eastern and Southern Africa	Bhirugnath- Bhookhun, M; Kitada, M	2017	The study highlights that a significant number of participants expressed consensus regarding the demanding nature of a maritime career. They emphasized the lack of acknowledgment for their contributions, the need for acceptance as female leaders in the maritime field, and the various financial and non-financial costs associated according to their experiences.

Türkiye has several major ports located along its coastline. Although these ports are workplaces with high employment potential that it is observed that the presence of women in these workplaces is limited. The study titled "Raising Awareness About Women in the Turkish Maritime Industry", conducted by Şenbursa and Özdemir in 2020, is one of the most significant pieces of research that sheds light on women's working conditions in the maritime sector. It is seen that, in the study, discriminatory attitudes toward women in the Turkish marine industry are carefully studied, along with potential solutions. According to Senbursa and Özdemir (2020) even though women seafarers like their profession and want to work at sea, prejudice in society and misperceptions of stakeholders about women in the industry keep them from achieving their objective.

Fidan and colleagues (2020) also highlighted the issue of gender-based discrimination in the maritime field within the Turkish public universities. Their research findings indicate that female students tend to experience a higher level of gender discrimination compared to male students. Additionally, an important outcome of the study revealed that despite receiving education in Underwater Technology programs, women face difficulties in securing employment within the industrial diving sector due to restrictions imposed by Turkish labour laws. The purpose of Epik and Özen's (2021) study titled "Women's Labor in "Men's Work": A Qualitative Study on Women Rebelling Gender Roles" is to examine society's perceptions and attitudes towards women in male-dominated professions, as well as the challenges they face and the coping strategies they employ to continue working in these roles. The study revealed that the main reason for motivating women to work in male-dominated professions is to break down gender biases. It was found that they encounter various challenges while performing their jobs, and to cope with these challenges, they adopt strategies such as dressing, behaving, and acting in a more masculine manner to gain acceptance.

Methodology

This study aims to reveal the perspectives on the employment of women in management roles in ports located in the South Marmara Region of Türkiye. The South Marmara region is a significant area with growing ports, exerting a substantial influence on Türkiye's foreign trade through maritime transportation. In this context, surveys were conducted with three port enterprises in the South Marmara region, namely Bursa, Bandırma, and Canakkale. The administrative staff of these companies were requested to participate in the survey. The surveys were conducted through Google Forms between February and December 2022. All participants received study information and provided consent before participating. There are 145 white-collar employees in the three companies. A total of 58 fully completed surveys were obtained, resulting in a response rate of 40% (58/145). The sample was obtained using convenient sampling, a non-probability-based method (Coşkun et al., 2015).

The study used a questionnaire as the data collection tool. The responses were evaluated using a 5-point Likert scale. The scale ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire consists of two types questions: demographic and company-related of questions, and questions based on the Likert scale. The first section of the questionnaire includes 8 questions about the participants and their companies. The second section contains a 10-item unidimensional scale developed by Halimah et al. (2019) to measure the perception of women's participation in port management. In the translation of the scale into Turkish, the back translation method was used. The English scale was translated into Turkish by the authors, then checked by a proficient English speaker, and compared for meaning with the original scale through back-translation from Turkish to English by another proficient English speaker. The survey questions were submitted to Bandirma Onyedi Eylül University Ethics Committee and were approved by the ethics committee decision with meeting number 2022-2 and dated 11/02/2022. For data analysis in the research, the SPSS 22.0 software package was used. Cronbach's Alpha coefficient was used for the reliability of the scale, and exploratory factor analysis was used for its validity. The participants' demographic data were presented in terms of frequency and percentage distributions. To assess women's perception of participation in port management, we calculated the scale's mean and standard deviation values. In addition, whether the perception differed according to the management level was analysed with the t-test, one of the parametric tests.

Findings and Analysis

In this section of the study, general information about the participants and port operations, as well as frequency analyses revealing the perception of female managers in the port, have been included.

The data for the study were obtained through a survey of 58 employees of three port enterprises in the South Marmara region. The demographic data can be summarized as follows.

- The majority of the respondents were male, comprising 50 people (86%).
- There were 7 people (12%) in the 18-29 age range, 12 people (21%) in the 30-35 age range, 21 people (36%) in the 36-41 age range, 11 people (19%) in the 42-47 age range, 7 people (12%) aged 48 and above.
- Based on their education levels, participants can be categorized as follows: 2 people (3%) with a primary school diploma, 13 people (22%) with a high school diploma, 31 people (53%) with a bachelor's degree, 12 people (21%) master's degree.

The Cronbach's Alpha reliability coefficient of the scale was found to be 0.804. In the normality assessment of the scale, the Kolmogorov-Smirnov test was conducted, and it was found to be p=0.200. Furthermore, Skewness and Kurtosis values, which are other measures examined in assessing the normal distribution, were calculated. The Skewness value was found to be 0.31, and the Kurtosis value was -0.531. Since p>0.05 and the Skewness and Kurtosis values are between -1 and +1, it was concluded that the data showed a normal distribution.

Exploratory Factor Analysis

Exploratory factor analysis was conducted to determine the factor structure of the scale. As a result of the first analysis, the factor load values of the 7th and 9th items were <.45 (.017 and .014) (Büyüköztürk, 2017), so these items were excluded from the analysis. In the second analysis, it was seen that the remaining 8 items were gathered under a single dimension. The findings are as follows:

The KMO value, which indicates the suitability of the data set for factor analysis, was .79 and the Bartlett sphericity test was significant (χ 2 (28)=240.76, p<.001) (Hutcheson & Sofroniou, 1999). The factor loading values range from .615 to .882.

After removing 2 items, Cronbach's Alpha coefficient was checked again and it was seen that the value increased to ,867.

Perception Findings Regarding the Involvement of Women in Port Management

The study initially examined participants' attitude scores regarding the involvement of women in port management, which reflects their perceptions. The descriptive analysis results are presented in Table 3. The port employees participating in the research disagreed with the idea that women should not be involved in port management, with an average score of 2.31 and a standard deviation of 0.88.

the Furthermore, perception of employees participating in the research regarding the involvement of women in port management was examined based on their managerial level. As seen in Table 3, employees were categorized into two groups: officers and managers. The differentiation of perception regarding the presence of women in port management was analyzed using a t-test, considering the managerial level. According to the t-test results, there was no significant difference in the perception of officers (Mean=2.42, Std. Deviation=0.94) compared to managers (Mean=2.19, Std. Deviation=0.81) regarding the participation of women in management.

Itom	(Component 1	
Item	F	% of Variance	
LYK1		.635	
LYK2		.683	
LYK3		.692	
LYK4		.882	52.39
LYK5		.811	
LYK6		.789	
LYK8		.615	
LYK10		.637	
	KMO a	nd Bartlett's Test	
Kaiser-M	eyer-Olkin Measure of Sa	mpling Adequacy.	.79
		Approx. Chi-Square	240.76
Bartlett's Test	of Sphericity	df	28
		Sig.	.00

Table 2: Result of Exploratory Factor Analysis

Table 3. Perception Scores of Participants Regarding the Involvement of Women in Port Management

		Descrip	tive Statistics		
	N	Minimum	Maximum	Mean	Std. Deviation
NWPM_mean	58	1.00	4.13	2.31	.88
Valid N	58				

Table 4. T-Test Results Showing the Perception of Participants Regarding the Involvement of Women in Ports Based on Management Level

Variable	Management_ Level	N	Mean	Std. Deviation	t	df	р
NWPM mean	Officer	31	2.42	.94	1.007	56	.32
NVPIVI_ITIEdit	Manager	27	2.19	.81	1.018	56	.31

Conclusion

This research highlights the issue of gender discrimination in the labour market, particularly within the field of port management, which is predominantly male-dominated. One of the starting points of this study is the observation that workers, despite having similar skills, education, and experience, may face discrimination in employment, access to jobs, promotion, or wages based on their gender, regardless of their productivity. Previous research on gender has shown that differences between genders are largely attributed to gender-based occupational and industrial discrimination, as well as institutional differences such as the distinction between the private and public sectors. Therefore, this study aims to examine a sector where gender-based research has not been conducted before, thus shedding light on this unexplored area.

The study covers port enterprises, which is one of the important elements of the maritime sector, which is a male-dominated sector. In the study, the perception of women's participation in port management was investigated. The research conducted with three port management companies located in South Marmara showed that port workers did not have a negative perception of women participating in port management. In addition, it has been checked whether this perception has changed depending on the fact that the port employees are officers and managers. No significant difference was found between officers and managers.

Overall, the study aims to underscore the importance of addressing gender disparities and promoting equal opportunities for women in the maritime sector. In the literature review, it is seen that much research highlights the challenges that women face in the male-dominated maritime sector and the efforts being made to promote gender equality in the industry. Hence, the literature review highlights key research points and insights related to the glass ceiling, gender disparities, struggles, prejudices, and stereotypes.

In the literature, much research has described the maritime sector as a male-dominated and demanding sector (Narayanan et al., 2023; Fidan et al., 2020; Halimah et al., 2019; Bhirugnath-Bhookhun, & Kitada, 2017). This research also reveals a similar result. Most participants in the research sample are comprised of men. Even though there is no reliable and clear statistical data available for women working in ports in Türkiye, past research has shown that the number of female employees is quite low. Furthermore, in some research, prejudices and stereotypes against women in maritime jobs are attributed to societal and cultural structures (Fidan et al., 2020; Kim et al., 2019; Wu et al., 2017). The study's focus is not on social prejudices, nor has it placed a strong emphasis on them. However, in contrast to the widely held belief in the literature, the research findings do, in a sense, present a positive and encouraging conclusion that challenges stereotypes about women in leadership roles at the management level.

In the same way, some research highlights the slow progress in the sector. Despite theoretical rights and international initiatives, progress towards gender equality in the maritime sector is depicted as slow, and it may take decades for women to achieve the recognition they deserve (Pike et al., 2021; Şenbursa & Özdemir, 2020; Medeiros et al., 2019). This has also been one of the notable points in this research. Overall, it has been found that there are very few women at the management level.

Based on the obtained results, the absence of a negative perception of women's involvement in port management creates hope for an increase in the number of female executives in ports in the future. The study suggests that supporting employment and increasing the presence of women in port enterprises would be beneficial for gender equality and even adopting a positive discrimination perspective. The limitations of the study include its coverage of only three port enterprises in the South Marmara region and the use of quantitative data analysis methods. In future studies, it would be possible to conduct a more comprehensive examination of the subject by including a greater number of ports and utilizing qualitative or mixed data analysis methods. The study suggests that future research could focus on identifying measures that can be taken, both short-term and long-term, to help women advance in their maritime careers and contribute to the sector effectively. We believe that the promotion of gender equality in the maritime sector is a way to improve efficiency, morale, communication, and productivity within the industry.

Extended Abstract

This study mainly discusses the issue of gender inequality, particularly among female workers in the maritime industry. It highlights the societal perceptions and barriers that hinder women's participation and advancement in various professions. The concept of the "glass ceiling" is mentioned as a major obstacle to women's career advancement and promotion, along with gender-based discrimination in hiring, firing, pay discrepancies, and opportunities. The maritime industry, being male-dominated, also faces challenges in attracting and retaining women employees due to traditional gender roles, a lack of awareness, and preconceptions within the sector. In the study, the importance of achieving gender equality and promoting women's representation in management positions in the maritime industry particularly the port sector is emphasized. The goal of the research was to understand the current status of women employed in ports and explore possibilities for their participation in management positions, with the aim of contributing to initiatives promoting gender equality in the sector.

In the study, the main discussion revolves around gender inequality in workplaces, particularly in maledominated sectors like the maritime industry. There is a perception that women lack the necessary skills and commitment for certain jobs, which leads to their exclusion hiring and development processes. Despite efforts to promote gender equality in ports, the global maritime workforce's percentage of women remains low. Research on women in the port sector is limited, but studies on women in maritime-related jobs and education have increased. More women are being trained in the field, and their interest in maritime navigation is evident. However, biases and gender stereotypes persist in port businesses, calling for further efforts to level the playing field for women in the shipping industry.

There are many studies that shed light on the challenges women face in the maritime industry and provide insights into improving gender equality and fostering a more inclusive work environment. For example, some research reveals various physical, social, and psychological barriers that hinder women seafarers' involvement in the workplace, while others mention female seafarers who face harassment, highlighting deficiencies in leadership and the need for a safe and inclusive onboard environment. Again, there are many studies that propose measures to enhance working conditions and promote gender equality for women seafarers or highlight challenges faced by women in a predominantly male environment, including difficulties for women in managerial positions.

Many studies also highlight the low representation of women in the port sector of Türkiye, which plays a crucial role in the country's transportation and trade infrastructure. Several major ports along Türkiye's coastline have limited female participation despite their potential for high employment. One particularly important article sheds light on discriminatory attitudes toward women in the Turkish maritime industry and explores potential solutions. The research reveals that societal prejudice and misperceptions about women in the industry hinder their progress as seafarers. Another study highlights gender-based discrimination within Turkish public universities' maritime programs, where female students perceive higher levels of discrimination compared to males. Another study investigates society's perceptions and attitudes towards women working in male-dominated professions in Türkiye. It uncovers the challenges faced by women in these roles and how they adopt coping strategies to break down gender biases and gain acceptance.

This study focuses on understanding the perspectives on the employment of women in management roles in ports within the South Marmara Region of Türkiye, which has significant importance for the country's foreign trade through maritime transportation. The research involved with three port enterprises (Bursa, Bandırma, and Çanakkale) and a survey of the administrative staff of these companies. The surveys were conducted using Google Forms from February to December 2022. A total of 58 fully completed surveys were obtained from the 145 white-collar employees, resulting in a response rate of 40%. The data collection tool was a questionnaire with two sections: one related to demographic and company-related questions and the other based on a 10-item Likert scale to measure the perception of women's participation in port management. The questionnaire's reliability was evaluated using Cronbach's Alpha coefficient, and its validity was assessed through exploratory factor analysis. Data analysis was performed using the SPSS 22.0 software package, and statistical tests like t-tests were used to analyse differences in perception based on management level.

The study collected data from a survey of 58 employees working in three ports in the South Marmara region. The majority of respondents were male (86%), with various age groups and educational backgrounds represented. The reliability of the scale used in the study was assessed using Cronbach's Alpha coefficient, which showed good internal consistency (0.804). The data was tested for normality, and the results indicated that it followed a normal distribution. An Exploratory Factor Analysis (EFA) was conducted to determine the factor structure of the scale. Two items were excluded from the analysis due to low factor load values. The remaining eight items were found to belong to a single dimension. The perception of participants regarding the involvement of women in port management was assessed. On average, the employees disagreed with the idea that women should not be involved in port management. The perception of officers and managers regarding the participation of women in management did not show a significant difference. In summary, the study examined the perception of female managers in the port industry based on data collected from 58 employees in the South Marmara region. It utilized exploratory factor analysis and descriptive statistics to reveal participants' attitudes toward the involvement of women in port management, showing an overall positive perception. Additionally, no significant difference was found in the perception of officers and managers regarding the participation of women in management.

Based on the obtained results, the study suggests that the absence of negative perceptions regarding women's involvement in port management is promising for the future increase of female executives in the port industry. The findings imply that promoting employment opportunities and enhancing the presence of women in port management would contribute to achieving gender equality, and the study even proposes adopting a positive discrimination perspective to support this goal. However, the study has some limitations, such as its narrow scope, as it only covers three port enterprises in the South Marmara region. Additionally, it relies solely on quantitative data analysis methods. For future research, it is important to conduct a more extensive investigation by including a larger number of ports and employing qualitative or mixed data analysis methods to gain a deeper understanding of the subject.

Finally, the study's positive findings regarding the perception of female managers in port operations suggest that promoting gender diversity in leadership positions could be beneficial for the port industry and overall gender equality. Nevertheless, further research is encouraged to overcome the study's limitations and provide a more comprehensive understanding of this important topic.

Conflict of Interest

The authors declare no conflict of interest. Both authors contribute the research (plan, design, data analysis and writing process) equally.

Ethical Permission of the Research

In this study, all the rules specified in the "Ethical Guidelines for Scientific Research and Publication in Higher Education Institutions" have been followed. No actions contrary to the "Actions Contrary to Scientific Research and Publication Ethics" section of the guidelines have been taken. The study was conducted with the ethical approval of the Bandırma Onyedi Eylül University Social and Human Sciences Ethics Committee, with meeting number 2022-2 and approval date of 11/02/2022. The necessary permissions for the questionnaire used in this study have also been obtained.

References

- Barahona-Fuentes, C., Castells-Sanabra, M., Ordás, S. & Torralbo, J. (2020). Female Figures in Maritime Education and Training Institutions Between 2009 And 2018: Analysing Possible Impacts of Gender Policies. WMU J Marit Affairs 19, 143–158.
- Barreiro-Gen, M., Lozano, R., Temel, M., Carpenter, A. (2021). Gender Equality for Sustainability in Ports: Developing A Framework. Marine Policy, 131, 1-7.
- Belev, B., Jelić Mrčelić, G., Jurić, Z. & Karin, I. (2020). Analysis of Female Interest in Maritime Education at Nikola Vaptsarov Naval Academy Varna and at the Faculty of Maritime Studies, University of Split. *Transactions on Maritime Science*. 9(2), 342–349.
- Bhirugnath-Bhookhun, M. & Kitada, M. (2017). Lost in Success: Women's Maritime Careers in Eastern and Southern Africa. *Palgrave Communications* 3, Article number: 17023.
- Büyüköztürk, Ş. (2017). Sosyal Bilimler İçin Veri Analizi El Kitabı. Ankara: Pegem Akademi.
- Coşkun, R., Altunışık, R., & Yıldırım, E. (2015). Sosyal Bilimlerde Araştırma Yöntemleri SPSS Uygulamalı, Güncellenmiş 8. Baskı. Sakarya: Sakarya Yayıncılık,
- DP World. (2018). Dünyada En Çok Kadının Çalıştığı Liman Türkiye'de. DP World News. https://www.dpworld.com/Tr /Turkiye/News/News/18dunyadaencokkadinincalistigiliman . Accessed: 03.04.2023.
- Dragomir, C. (2019). Postmodern Maritime Human Resources Management – Amending the Maritime Labor Convention with Gender Requirements. *Postmodern Openings*, 10(1), 21-35.
- Dragomir, C. (2019). Gender in Postmodernism Maritime Transport. *Postmodern Openings*, 10(1), 182-192.
- Elbir, Y. A (2022). Literature Review on Discrimination at Work: Mobbing, Glass Ceiling, Sexual Harassment. Adana Alparslan Türkeş Bilim ve Teknoloji Üniversitesi, Sosyal Bilimler Enstitüsü, Yönetim Bilişim Sistemleri Ana Bilim Dalı, Yönetim ve Organizasyon (İngilizce) Bilim Dalı, Yayınlanmamış Yüksek Lisans Tezi.
- Epik, M.T. & Ozen, S. (2021). "Erkek İşi"nde Kadın Emeği: Toplumsal Cinsiyet Rollerine Başkaldıran Kadınlar Üzerine Nitel Bir Araştırma, International Journal of Innovative Approaches in Social Sciences, 5(2), 66-90.

- Fidan,V., Günay, E., Akpınar, G. & Atacan C. (2020). Gender Discrimination Perception among Maritime Students in Turkey. *Journal of ETA Maritime Science*, 8(3), 162-176.
- Halimah, S., Subramaniamb, G., & Nasir, S. (2019). The Port Sector in Malaysia–Does Gender Diversity Exist at the Management Level?. *International Journal of Supply Chain Management*, Vol, 8(6), 172-180.
- Horck, J. (2010). The Gender Perspective in Maritime Education and Training. *WMU J Marit Affairs* 9, 93–119.
- Jafarov, S. (2022). Cam Tavan Sendromunun Kadınların Çalışma Hayatına Etkisi: İngiltere ve Türkiye Örneği, Nişantaşı Üniversitesi, Lisansüstü Eğitim Enstitüsü, İşletme Ana Bilim Dalı, Yayınlanmamış Yüksek Lisans Tezi.
- Jones, R.G. (2008). Empowering professional women in the Maritime World: the WMU contribution. *WMU J Marit Affairs* 7, 505–508.
- Karatepe, S. & Arıbaş, N. N. (2015). İş Hayatında Kadın Yöneticilere İlişkin Cinsiyet Ayrımcılığı: Türkiye İçin Bir Değerlendirme, Yasama Dergisi, (31), 7-23.
- Kim, Te., Sharma, A., Gausdal, A.H. & Chae, Cj. (2019). Impact of Automation Technology on Gender Parity in Maritime Industry. WMU J Marit Affairs 18, 579–593.
- Ku, Kang-Ning; Ye, Kung-Don; Lee, Hsuan-Shih; Lin, Hsin-Hung; & Gan, Guo-Ya. (2017). Factors Affecting Female Students' Choice of Maritime Majors. *Journal of Marine Science and Technology*. Vol. 25, No. 4, 417-423.
- Medeiros, S.E., do Valle Ventura Piassi, F.A. & Oliveira Feodrippe,
 R. (2019). Mapping Women's Presence and Importance in
 The Brazilian Maritime Community. WMU J Marit Affairs 18, 557–578.
- MITAGS. (2022). Women in the Maritime Industry. https://www.mitags.org/women-at-sea/ Accessed: 17.05.2023.
- Monteiro, J. L., Santoso, P. I., & Prabowo, R. (2021). Maritime Industry-Ports and Supporting Activities: Literature Review. *In IOP Conference Series: Materials Science and Engineering*. Vol. 1010, 1-9.
- Narayanan, S.C., Emad, G.R. & Fei, J. (2023). Key Factors Impacting Women Seafarers' Participation in The Evolving Workplace: A Qualitative Exploration. *Marine Policy*, Volume 148, 1-9.
- Pike, K., Wadsworth, E., Honebon, S., Broadhurst, E., Zhao, M., & Zhang, P. (2021). Gender in The Maritime Space: How Can the Experiences of Women Seafarers Working in The UK Shipping Industry Be Improved?. *The Journal of Navigation*, 74(6), 1238-1251.
- Şenbursa, N. & Ozdemir, P. (2020). Raising Awareness About Women in Turkish Maritime Industry. *Journal of ETA Maritime Science*, 8(3), 194-209.
- Sofroniou, N., & Hutcheson, G. D. (1999). The Multivariate Social Scientist: Introductory Statistics Using Generalized Linear Models. UK: SAGE Publications Ltd.
- Szozda, Z., Czyzowicz, D., Kalkowska, E., Raciborska, P., Raczkowska, J. & Skowronek, M. (2014). Female Students' Perspective for Maritime Career. Akademia Morska w Szczecinie, 40(112), 105-112.
- Tongzon, J. L., & Lee, S. Y. (2015). The Challenges of Economic Integration: The Case of Shipping in ASEAN Countries. *The Pacific Review*, 28(4), 483-504.
- Turgut, A. Ş. (2019). Türkiye'deki Gelir Eşitsizliğinin Toplumsal Cinsiyet, Kadının İstihdamı ve Kadın Yoksulluğu Açısından Değerlendirilmesi. Kocaeli Üniversitesi Sosyal Bilimler Derqisi, 2(38), 315-329.
- Turnbull, P. (2013). Promoting the employment of women in the transport sector: Obstacles and policy options. International Labour Organization (ILO).

- UN Women (2016). Leave No One Behind A Call to Action for Gender Equality and Women's Economic Empowerment. https://www.unwomen.org/sites/default/files/2023-01/hlp-wee-report-2016-09-call-to-action-en.pdf Accessed: 15.06.2023.
- Utma, S. (2020). Kadına Yönelik Cinsiyet Ayrımcılığı ve Cam Tavan Sendromu, Sosyal ve Beşerî Bilimler Dergisi, 11(1), 44-58.
- Vo, L.-C., Lavissière, M.C. & Lavissière, A. (2023). Retaining Talent in The Maritime Sector by Creating a Work-Family Balance Logic: Implications from Women Managers Navigating Work and Family. International Journal of Physical Distribution & Logistics Management, Vol. 53, No. 1, 133-155.
- Yüzbaşığolu, Ç. (2022). Limanlar, Kadınlar ve Toplum. Ekonomi Dünya Haberler. https://www.ekonomidunya.com/limanlarkadınlar-ve-toplum/35235/ Accessed: 15.06.2023.
- Zhao, M.H., Zhao, L.J., Zhang, P.F., Wu, J.J., Pike, K. & Broadhurst,
 E. (2017). Chinese Women Seafarers: A Case Study of The
 Women Cadets in Shanghai. *Marine Policy*, 83, 40-47.
- Wu, CL., Chen, SY., Ye, KD & Ho, YW. (2017). Career Development for Women in Maritime Industry: Organisation and Socialisation Perspectives. Maritime Policy & Management, 44(7), 882–898.

WPSP (2020). World Ports Sustainability Report. https://sustainableworldports.org/wpcontent/uploads/WORLD-PORTS-SUSTAINABILITY-REPORT-2020-FIN.pdf Accessed: 15.05.2023.

Questionnaire Survey Items- Perceptions Towards Port Management

1	The maritime industry is not suitable for women
2	The seaport sector is not favourable for women
3	There is no demand of women in seaport sector
4	The seaport management prefers men as it suits the nature of ports business
5	The seaport operations require men as work is tough and challenging
6	Staff working in seaports prefer men as working peers
7	Management needs to have gender diversity as the Company's strategic agenda
8	Management has preference for men for port management
9	The management treats women staff equally to men staff
10	The management is selective when it comes to hiring women managers



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Reverse Logistics Practices In Humanitarian Supply Chain Management: A Content Analysis

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Ö7

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In recent years, natural disasters associated with human-induced factors and climate changes have increased. The humanitarian supply chain (HSC) provides a practical and rapid response to these disasters and deals with the destruction that may occur due to disasters. The use of reverse logistics, one of the key supply chain
the destruction that may occur due to disasters. The dse of reverse logistics, one of the key supply chain processes for successful supply chain management, is becoming widespread in the supply chain. Its use in HSC is limited. Considering the aim of HSC to create positive effects on the population affected by disasters, it is essential for the sustainability of resources and processes that they adopt reverse logistics practices. In this context, the study aims to analyze the usage area of reverse logistics in HSC operations and show where it can be applied in the future. In line with the purpose of the study, the annual reports and publications of aid organizations operating in Türkiye were analyzed using the content analysis method, and semi-structured interviews were conducted with experts in humanitarian aid organizations. It has been concluded that humanitarian aid organizations know reverse logistics processes, and their application areas are limited, and it is possible to apply them in the future. Adopting reverse logistics processes in humanitarian supply chain management by disaster relief organizations can ensure efficient and cost-effective reuse and recycling of disaster relief supplies.
r r r r

Keywords: Content Analysis; Humanitarian Supply Chain; Reverse Logistics

İnsani Tedarik Zincirinde Tersine Lojistik Uygulamalari: İçerik Analizi

Süreç

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Son yıllarda insan kaynaklı faktörler ve iklim değişiklikleri ile ilişkilendirilen doğal afetler artış göstermiştir. İnsani

tedarik zinciri bu afetlere etkili ve hızlı yanıt verilmesini sağlamakta ve afetlerin sonucunda olusabilecek tahribatlarla ilgilenmektir. Başarılı bir tedarik zinciri yönetimi için anahtar tedarik zinciri süreçleri içerisinde yer

alan tersine lojistik, ürünlerin bir dağıtım kanalında tüketiciden üreticiye doğru hareketi olarak

tanımlanabilmektedir. Tersine lojistiğin, ticari tedarik zincirinde kullanımı yaygınlaşmakta ve uygulama alanları artış göstermektedir, insani tedarik zincirinde ise kullanımı kısıtlıdır. İnsani tedarik zincirinin, afetlerden etkilenen nüfusun üzerinde olumlu sosyal, çevresel ve ekonomik etkiler yaratma amacı göz önünde bulundurulduğunda afet yönetim sürecinde tersine lojistik uygulamalarını benimsemeleri kaynakların ve sürecin sürdürülebilirliği açısından önemlidir. Bu kapsamda çalışmanın amacı tersine lojistiğin, insani tedarik zinciri operasyonlarında kullanım alanını analiz etmek ve gelecekte uygulanabileceği alanların varlığını göstermektir. Çalışmanın amacı doğrultusunda literatür taraması yapılmış ve Türkiye'de faaliyet gösteren yardım kuruluşlarının yıllık raporları ve yayınları içerik analizi yöntemiyle incelenmiş ve insani yardım kuruluşlarında yer alan deneyimli ve uzman kişilerle yarı yapılandırılmış görüşme gerçekleştirilmiştir. Çalışmada insani yardım kuruluşlarının tersine lojistik süreçleri hakkında bilgi sahibi olduğu ve uygulamalarında kullanım alanlarının sınırlı düzeyde olduğu gelecekte bunların uygulanabilmesinin mümkün olduğu sonucu elde edilmiştir. Afet yardım kuruluşlarının insani tedarik zinciri yönetiminde tersine lojistik süreçlerini benimsemeleri, afet yardım malzemelerinin verimli ve uygun maliyetli

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Anahtar Kelimeler: İçerik Analizi, İnsani Tedarik Zinciri, Tersine Lojistik

olarak yeniden kullanımını ve geri dönüştürülmesini sağlayabilir.

Introduction

The humanitarian supply chain, which has an important place in aid organizations and disaster operations, aims to provide maximum benefits in terms of medical aid, food, shelter, and drinking water to victims of emergencies and disasters. It also aims to allocate and quickly distribute the right amount of material needed to the right demand points (Tomasini and Wassenhove, 2009; Dubey and Gunasekaran, 2015; Özdemir et al. 2021). Actors in the humanitarian supply chain who share a common value system based on alleviating the suffering of those affected by disasters and emergencies are donors, charities, NGOs, governments, the military, and logistics service providers (Thomas and Kopczak 2005). In humanitarian aid operations, the humanitarian supply chain is vital in delivering food, shelter, medicine, and first aid needs to disaster victims (Thomas and Kopczak, 2005). Supply chain and logistics constitute 80% of the costs incurred in these operations (Van Wassenhove, 2006). With the increase in natural disasters, aid organizations' importance is increasing daily (Behl and Dutta, 2019). The humanitarian aid provided by aid organizations is expected to be cost-effective and sustainable (Laguna-Salvado et al.,2019).

Dubey and Gunasekaran (2015) stated that the humanitarian supply chain will be driven by sustainable development and ecological balance in the future. On the other hand, aid organizations are expected to cause less environmental damage and use resources ethically and efficiently in aid operations in the humanitarian supply chain (Haavisto and Kovacs, 2014). In particular, an effectively and efficiently managed humanitarian supply chain enables humanitarian organizations to make the best use of their resources, allocating the right amount of material needed to the appropriate demand points as soon as possible, under limited financial constraints. Making the best use of donated funds, using the least amount of resources within the scope of the activities carried out, and reducing the urgent needs of a population sustainably, are associated with the success of humanitarian supply chain operations (Wassenhove, 2006).

There are key supply chain processes in thriving supply chain management. Systematic handling of reverse logistics, one of the key processes in the supply chain, is becoming an ecological, economic and legal obligation (Nakıboğlu, 2007). Reverse logistics can be defined as the movement of products from the consumer to the producer in a distribution channel. This process includes product acceptance, renewal, remanufacturing, recycling, and disposal. Reverse logistics, the recovery, and reuse of products, mainly reduce waste disposal, extraction of raw materials, and emissions from transport and distribution (Turrisi et al.,2012), reducing negative impacts on the environment and saving landfill space, fuel and costs (Sarkis et al.,2010).

It is expected that reverse logistics reduce or prevent environmental damage and that the activities involved in the process will be carried out at the "least cost" to the environment. (Sarkis et al.,2010). This situation reflects the desire of humanitarian aid organizations to "do not harm" to the environment and the individual (Peretti et al.,2015). In addition, considering the purpose of the humanitarian supply chain to create positive social, environmental, and economic effects on the population affected by disasters, it is essential for the sustainability of resources and the process that they adopt reverse logistics practices in the disaster management process.

First of all, humanitarian supply chain management is discussed in the study. Later, reverse logistics in the humanitarian supply chain was included, and the studies and applications made in this context were discussed in the literature review section. In the research method part of the study, information about the analysis used is given. In the findings part, organizations operating in Türkiye and having annual reports and publications on their corporate websites were subjected to content analysis, and semistructured interviews were conducted with experienced and experts in humanitarian aid organizations. Finally, in the conclusion part, the findings of the research are discussed, and evaluations and suggestions are given.

Humanitarian Supply Chain Management

While disaster relief efforts have been practiced throughout history, humanism often dates back to the efforts of Henri Dunant (founder of the Red Cross Agency) to help wounded soldiers at the Battle of Solferino (Kovacs and Spens, 2011). After the Indian Ocean earthquake and tsunami in 2004, humanitarian logistics played a central role in disaster relief efforts, and its importance was recognized by the public and emerged as a new research area (Kovacs and Spens, 2007; Kunz and Reiner, 2012).

The International Federation of Red Cross and Red Crescent Societies defines a disaster as "an event that seriously disrupts the functioning of a community or society and causes human, material, economic or environmental losses that exceed the community's ability to cope using its resources." (IFRC, 2022). Disasters are increasing year by year all over the world. The growth rate of natural disasters (drought, hurricanes, floods, famine, earthquake, etc.) and man-made disasters (international conflicts, refugee crises, wars, etc.) affects the social existence of humanity (Behl and Dutta, 2019). It is stated that this situation will increase over the years and will continue.

Thomas and Kopczak (2005) stated that deaths due to disasters will increase in the next 50 years. Recent major crises in the world (fire, earthquake, epidemic, etc.) give rise to this situation. In addition, the number of deaths due to Covid-19, which affected the whole world as of 2019 and was declared an emergency by the World Health Organization in 2020, is 4,200,412, according to WHO reports (WHO, 2021). The importance of humanitarian logistics and supply chain management, which constitutes an essential part of disaster relief operations and disaster relief operations (Ye and Yan, 2020), has been understood more and has been among the research subjects in the Covid-19 process, which is characterized as a period of uncertainty and danger (Karabag, 2020). Efficient and effective logistics operations and supply chain management are required to perform disaster relief operations effectively (John, 2017). Humanitarian supply chain management encompasses the system and processes involved in mobilizing people, resources, skills, and knowledge to assist vulnerable people affected by disasters and embraces (Wassenhove, 2006; John, 2017) the understanding of providing the proper assistance to the right beneficiaries at the right time.

The humanitarian supply chain deals with disasters from earthquakes, tsunamis, hurricanes, ranging epidemics, droughts, famines, terrorist attacks, and wars with a combination of various disasters that can occur simultaneously (Van Wassenhove ,2006). Thomas and Kopczak (2005:2) defined humanitarian logistics management as follows; "The process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials and related information from the point of origin to the point of consumption, to alleviate the suffering of the vulnerable." Humanitarian logistics and supply chain focus on efficiently managing goods, information, and service flows to respond to the urgent needs of the population affected by emergencies. This is a critical element of a successful relief operation (Sheu, 2007).

Supply chain and logistics activities constitute 80% of humanitarian aid operations (Van Wassenhove, 2006) and are an essential factor in humanitarian aid operations. Van Wassenhove (2006) states that logistics is *"the costliest part of any relief operation and the part that can tell the difference between a successful and a failed operation."* Research led by the Fritz Institute suggests that logistics is at the center of aid for several reasons. These reasons (Thomas, 2003):

- Act as a bridge between disaster preparedness and response through logistics, effective purchasing procedures, supplier relationships, knowledge of prepositioned stock and local shipping conditions,
- ✓ The speed of response to major humanitarian programs, including health, food, shelter, water, and sanitation interventions, depends on the ability of logisticians to procure, transport, and receive supplies at the site of a humanitarian effort,
- Because the logistics department is often involved in every phase of a relief effort, it has a rich repository of data that can analyze to enable post-event learning.
- ✓ Balcık and Beamon (2008) summarized the essential features and differences of humanitarian logistics (different from business logistics) as follows.
- Unpredictability of demand in terms of timing, location, type, and size,
- Sudden demand for vast quantities and short lead times for a wide variety of supplies,
- ✓ High risks associated with adequate and timely delivery,
- ✓ Lack of resources (supply, people, technology, transport capacity, and money).

Van Wassenhove (2006) stated that the difference of the humanitarian logistics sector from the commercial supply chain and the private sector is not only factors such as working conditions, demand uncertainty, and lack of resources, but also several other factors (invisibility, uncertainty, new phenomena, factor diversity, interaction between factors, and gradual change) in the physical or geographical environments where disasters occur, causing complexity in humanitarian logistics (Richardson, 1994; Van Wassenhove, 2006).

In this process where saving human life is in question and no profit motive is pursued, aid organizations focus only on forward flow. Reverse logistics is often ignored and not positioned in the process. Reverse logistics in the commercial supply chain is *"The process of planning, implementing, and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements."* (Rogers and Lembke, 1999).

It is expected that reverse logistics reduce or prevent environmental damage and that the activities involved in the process will carry out at the "least cost" to the environment (Sarkis et al., 2010). This situation reflects the desire of humanitarian aid organizations to "do not harm" the environment and the individual (Peretti et al., 2015). In addition, considering the purpose of the humanitarian supply chain to create positive social, environmental, and economic effects on the population affected by disasters, it is essential for the sustainability of resources and the process that they adopt reverse logistics practices in the disaster management process.

Reverse Logistics in The Humanitarian Supply Chain

In 2019, humanitarian reports showed that more than 100 million people worldwide needed assistance, increasing to nearly 120 million in 2020 (GHA, 2020). The recent increase in disasters and their consequences causing significant damage requires effective management humanitarian operations and of humanitarian supply chains and appropriate response methods (Sahay et al..2016).

While humanitarian aid provides essential assistance to people affected by crisis and offers opportunities for longer-term development gains, countries or communities receiving aid often lack adequate infrastructure or management systems to handle the aidrelated waste. Solid waste management is one of the most pressing global development problems, and the waste problem is expected to grow as time passes, especially for countries receiving humanitarian aid. Therefore, waste can accumulate in countries receiving humanitarian aid and remain in communities indefinitely or lead to inappropriate disposal measures. This situation causes adverse effects on the environment (USAID, 2020).

Humanitarian aid is based on the Hippocratic tenet of "Help or do no harm," which is included in the Hippocratic Oath in medicine. This principle can be interpreted as "supporting or not hindering development" or "not harming the natural environment" within the scope of humanitarian aid (Haavisto ve Kovacs, 2014). Humanitarian organizations need to consider and implement the concept of reverse logistics and operations in the management of disaster relief supplies and in the humanitarian supply chain to protect the natural environment and in line with the objectives of "no harm" to the environment and the individual (Peretti et al., 2015).

Disaster relief materials are used throughout the process to respond to damage caused by disasters and crises; The vital needs and safety items needed (such as food, drink, clothing, and shelter), medical supplies and tools, and equipment used for first aid interventions have a critical role in saving lives and restructuring communities at all stages of disaster management (Ye and Yan, 2020).

Disaster relief supplies include food waste, packaging waste, medical supplies, waste from tools and equipment used for first aid interventions (medical supplies and shelters), and all kinds of waste generated in rescue and aid operations (like building debris). "The purpose of reverse logistics in humanitarian aid operations is related to green marketing strategies and the recovery management of all kinds of aid materials sent to reverse flows to ensure efficient and cost-effective reuse and recycling of disaster relief materials used in disasters and emergencies" (Ye and Yan, 2020; Peretti et al.,2015). Successful recovery management and proper disposal of relief supplies can significantly reduce waste from disaster relief supplies.

Because of the uncertainty of disaster events and their urgent response, the humanitarian supply chain has reactive management and is designed as temporary (Pettit and Beresford, 2009). For this reason, the procurement, management, inventory, and storage of the needed materials are not as easy as in the traditional supply chain. Ye and Yan (2020), the problems experienced in disaster management.

- Persons involved in the management of materials stocked in warehouses for disaster relief do not have adequate training,
- Problems in coordination and information sharing between stakeholders and managers,
- He stated that there might be inspection and classification problems in the inventory management of the donated materials.

Due to these problems in management, the proper demand cannot be determined, inventory and cost increases are experienced due to a lack of coordination, and scarce resources that need to be used and distributed effectively can be wasted and deteriorate, causing environmental waste.

What will happen to the waste such as tents, water drums, and tarpaulins left in the aid area after the completion of the disaster relief process is still a big problem that needs to be answered. Similarly, waste such as detergents and plastic containers created by volunteers and people working in disaster areas is a problem. Ye and Yan (2020) stated that several years after the 2008 earthquake in the Sichuan province of China, due to the lack of regular monitoring and management, tons of rice and flour sacks expired and deteriorated in the warehouses of some towns affected by the earthquake. Each item given to the needy is a production resource and must be returned to its source if these items are no longer used (Monica, 2011:66). In this case, the application of reverse logistics can be a solution to these waste and waste problems. Using reverse logistics will result in less waste due to recycling used products.

During the 1980s, reverse logistics was limited to the movement of products from the customer to the manufacturer instead of the primary flow. In this direction, since most product shipments are sent in one order, Lambert and Stock first defined reverse logistics in 1981 as "proceeding in the wrong direction on a one-way road." (Rogers and Lembke, 2001). The Logistics Management Council, on the other hand, published the first known definition of reverse logistics in the early 90s. This definition is defined by Stock (1992) as "waste recycling, disposal, and management of hazardous materials; More broadly, it is defined as "a role of logistics used to break down, recycle, repair, reuse and destroy resources." (Brito ve Dekker, 2002).

Reverse logistics covers the reverse distribution, recycling of products, reduction, management, and disposal of wastes related to packaging and use of products. It can also be seen as a holistic approach, including reducing the amount of material in the advanced system (Dowlatshahi, 2000; Gardas et al., 2018). Reverse logistics aims to maximize product values by focusing on the reverse flow of products in the supply chain and is interested in how the returns and recoveries will be experienced in the process in terms of efficiency and economy (Han and Trimi, 2018; Senthil et al., 2018).

The humanitarian supply chain differs from the commercial supply chain due to physical, financial, and information flows. While in a corporate supply chain, there are shareholders and customers, in a humanitarian supply chain, there are donors and beneficiaries (Aslanzadeh, et al., 2009: 228). In this respect, reverse logistics processes will differ in the humanitarian supply chain due to the actors and processes that differ from the commercial supply chain. Reverse logistics processes in the humanitarian supply chain start with product collection, as seen in Figure 2. Distributors and charities can reuse in-kind donations in good condition used by the beneficiary by taking back the surplus and unnecessary ones. Finally, suppliers can recycle donations so that the materials of used products and components can be reused.

Considering the humanitarian supply chain's aim to create positive social, environmental, and economic effects on the population affected by disasters, it is essential for the sustainability of resources and processes to adopt reverse logistics practices in the disaster management process. In addition, the environmental impact of reuse and recycling benefits organizations by saving landfill space, energy, and costs (Sarkis et al.,2010).


Literature Review

Reverse logistics applications in the commercial supply chain reduce the negative environmental impact and provide economic savings for organizations (Peretti et al.2015). In addition, reverse logistics in the commercial supply chain has attracted significant attention from practitioners and academics as a strategic resource that can help companies gain a competitive advantage through the efficient recovery of products (Garcia-Sanchez et al., 2019). Humanitarian supply chains, on the other hand, aim to provide maximum benefits in terms of medical aid, food, shelter, and drinking water to victims of emergencies and disasters, without profit. In this direction, in theory, and practice, reverse logistics applications are not discussed much.

In the literature, firstly, reverse logistics in the humanitarian supply chain discussed in terms of green logistics and environmental approaches. Kovacs (2011) emphasized the environmental impacts of humanitarian aid activities during their implementation and the lack of reverse logistics in this process. Sarkis et al. (2012) stated the importance of environmental approaches to meet the ecological pressures and expectations of organizations, society, and governments in the humanitarian supply chain. Monica and Andreas (2011) analyzed whether there are reverse logistics stages of products made by donors in humanitarian aid operations. Peretti et al. (2015) looked at the application areas of reverse logistics in aid operations of 14 top aid organizations worldwide (CARE, CRS, IFRC-RCS, MSF, OCHA, Oxfam, Save the Children, UNDP, UNFPA, UNHCR, UNICEF, WHO, WFP, World Vision). They discussed the challenges and opportunities of reverse logistics for humanitarian organizations. Hu and Sheu (2013) proposed a new reverse logistics system for post-disaster debris, and aimed to minimize logistics costs, risk-related costs and psychological costs. Similarly, Aydın (2020) has developed a reverse logistics network design for debris management of end-of-life buildings for disaster preparedness.

The importance of humanitarian aid has increased in the last ten years, and the number of people in need of humanitarian assistance has tripled. According to the 2020 Global Humanitarian Outlook report prepared by the

Nations Office for the Coordination United of Humanitarian Affairs (OCHA), it been stated that in 2020, approximately one in 45 people worldwide will need humanitarian assistance, but this number will double due to COVID-19. Because of these increases, the United Nations (UN) highlights areas for improvement in global humanitarian assistance, including supply systems and supply chains. In addition, it has created "The New Way of Working" to reduce people's needs, risks, and vulnerabilities, increase their resilience, ensure environmental sustainability, and include the 2030 Sustainable Development Goals (UN, 2022).

USAID (U.S. Agency for International Development) conducted a study titled "Sustainability in has Humanitarian Supply Chains: Determining the Preliminary Scope of Improvements in Packaging," in which organizations such as the UN World Food Program, the United Nations Refugee Agency, the International Committee of the Red Cross, the International Federation of the Red Cross, the Global Logistics Cluster, and the United Nations Environment Program members. The study investigated the attitudes and effects of humanitarian aid stakeholders towards packaging waste. It has been stated that packaging wastes differ according to the disaster situations experienced. While it can give immediate priority to non-food aid (for example, shelter) in sudden disasters, it can prioritize food aid in slowdeveloping emergencies. Each situation reveals a different set of supply chains and operations and differences in packaging and waste used. For example, emergencies and crises that often require ready-to-use food may involve multi-layered plastic packaging products (carrier bags) that are difficult to manage at the end of their life due to metalized or multi-material components. Emergencies and crises that require higher levels of non-food assistance can present different challenges due to the diversity of goods and the resulting packaging diversity. It was noted that these differences in packaging and packaging waste management are essential to consider in interventions designed for packaging waste management for emergencies and crises with the most significant waste problems (USAID, 2022).

With a focus on sustainability and recycling, the IFRC will consider how it can reduce packaging size, use "greener" materials, collaborate with vendors to standardize packaging, promote and adopt returnable packaging methods, and promote recycling and reuse. He is developing the project "Greening the Supply Chain." (USAID, 2022).

The UNHRD (UN Humanitarian Response Depot) Laboratory is working on an initiative called "give the packaging a second chance," which seeks to find ways to reuse items shipped in disaster relief operations. UNHRD has developed a "Crib Tent" specially designed for babies most vulnerable in crises. This cradle tent comprises storage boxes containing geodesic tents sent to the aid area. The cradle tent can also be reused as a chair (UNHRD, 2022).

Studies and practices on reverse logistics in the literature and throughout the humanitarian aid sector have been recently explored to ensure sustainable relief efforts due to increasing disasters and their long-term effects.

Methodology

This study aims to learn the current situation and attitude towards the future of reverse logistics in the humanitarian supply chain. In this direction, content analysis and semistructured interviews, among the qualitative analysis methods, were used. Content analysis is defined as "a technique that provides a methodical, systematic, objective and, if possible, quantitative examination of the content of various texts to classify and interpret their basic elements that do not lend itself directly to naive reading." (Bilgin, N.2006). The most prominent data sources suitable for content analysis; are texts traditionally ascribed meaning, such as oral discourse, written documents, and visual representations (Krippendorff, 1989).

Tasdogan (2018) T.C. stated that from the list of associations registered to the Department of Associations of the Ministry of Interior, there are 144 domestic and foreign humanitarian organizations operating in Türkiye's field of humanitarian assistance. Among the aid organizations that carry out disaster and emergency planning studies and provide services in Türkiye, there are AFAD and service groups affiliated to AFAD and Logistics Warehouses, Turkish Red Crescent, TAF(Turkish Armed Forces), Metropolitan Municipality AKOM, Private Sector, and National Medical Rescue Team (UMKE) (Ulugergerli, 2021). Among the national NGOs and Volunteers and Volunteer Associations that are in the field of humanitarian aid, emergency and rescue, IHH Humanitarian Aid Foundation (IHH), Support to Life Humanitarian Aid Association, Search and Rescue Association (AKUT), Emergency Humanitarian Aid and Education Association, Istanbul University Search and Rescue Association and Associations such as Nilüfer Search and Rescue can be counted.

Peretti et al. (2015) defined annual corporate reports as public documents used to show not only what the organization has done in the past year but also how the organization will follow in the coming years. In this context, the research sample consists of humanitarian aid organizations AFAD, Turkish Red Crescent, IHH Humanitarian Relief Foundation, and Support to Life Humanitarian Aid Association, which have annual institutional reports on their website. Institutional reports of UMKE, AKOM, and TAF are not available on their official websites. In the study, the annual reports of these organizations involved in disaster and emergency planning studies in Türkiye between the years 2017-2021 were first examined using the keywords determined in Table 1 with the content analysis method. The results obtained from the keywords in these reports are shown in Table 2.

Due to the insufficient reverse logistics processes in the annual corporate reports, the articles, books, brochures, and magazine publications on the websites of the organizations, which include the realized applications and projects, were included in the content analysis using keywords, and the results were reflected in Table 3.

After the reviewed reports and publications, a semistructured questionnaire was directed to experienced and expert people working in humanitarian organizations and associations. Researchers frequently prefer a semistructured interview as it has a certain level of standardization and flexibility, eliminates limitations in tests and questionnaires based on writing and filling and helps to gain in-depth information on a particular subject (Yıldırım and Şimşek, 2003). Semi-structured interviews are not as rigid as structured interviews and not as flexible as unstructured interviews; located between the two (Karasar, 1995).

The study used the snowball sampling method to determine the aid organizations from which data will be obtained. Snowball is a method used when the universe is large or lacking in information or when it is difficult to reach the units formed by the universe (Patton, 2005). The data of the current research was collected via Google Docs. While demographic information was requested in the first part of the research questionnaire, in the second part, five questions were directed to the experts using the study of Pretti et al. (2015). The answers to the questionnaire were collected online between 12.10.2022 and 01.11.2022

Results

Content Analysis

Agrawal et al. (2015) and Thierry et al. (1995), based on a comprehensive literature review, the activities involved in reverse logistics processes were formed in 9 stages. The activities involved in these processes are shown in Table 1. The reverse logistics activities used in Table 1 were used as keywords for the study. Reverse logistics practices of AFAD, Turkish Red Crescent, IHH, and Support to Life Humanitarian Aid Association, which are among the humanitarian organizations in Türkiye, in the management of the humanitarian supply chain were created by making content analysis in Table 2. A total of 65 corporate reports published by these organizations from their official sites between 2017-2021 were scanned by content analysis method using keywords.

Table 1: Reverse Logistics Processes	
Product	Development
R	ework
Produ	ct Renewal
Rei	lovation
D	sposal
F	epair
	Reuse
Rep	oduction
Re	cycling

Sources: Thierry et al., 1995; Agrawal et al., 2015.

Table 2: Reverse Logistics Applications in Humanitarian Supply Chain Management (2017-2021 annual corporate reports)

Reverse Logistics Processes	AFAD	Turkish Red Crescent	IHH	Support to Life Humanitarian Aid Association
Product Development	1			
Rework				
Product Renewal				
Renovation	77	2	5	
Disposal				
Repair	3	5	6	
Reuse				
Reproduction				
Recycling	1	5	1	
Sources: (URI 1) (URI 2) (URI 3) (UR	14)			

Sources: (URL 1), (URL2), (URL 3), (URL 4)

Table 3: Reverse Logistics Applications in Humanitarian Supply Chain Management (Publications)

Reverse Logistics Processes	AFAD	Turkish Red Crescent	IHH	Support to Life Humanitarian Aid Association
Product Development		2		
Rework	5			
Product Renewal				
Renovation	15	56	3	6
Disposal	11			
Repair	93	55	5	17
Reuse	1	8		
Reproduction	1			
Recycling	3	34	1	
Sources: (URL 1), (URL2), (URL 3), (UR	L 4)			

According to the research results in Table 2, only renovation, repair, and recycling activities were carried out as reverse logistics applications. Due to the insufficient results, a total of 79 publications (books, articles, magazines, and brochures) in which the organizations' projects, practices, and activities between the years 2017-2021 were discussed and subjected to content analysis.

According to the analysis results;

✓ AFAD mainly included renewal, disposal, and repair activities in its corporate report and publications within reverse logistics processes. The report dealt with the renewal of the regions at risk of disaster in cities, experiencing infrastructure bottlenecks, losing their old value and function, and low quality of space, taking into account the social, economic, environmental, and aesthetic dimensions. It also discussed the replacement rates of disaster relief materials and equipment within the scope of performance indicators.

- The Red Crescent stated its repair, renovation, and recycling activities within the scope of its projects and aids in places damaged by disasters.
- IHH Humanitarian Relief Foundation included repair and renewal activities among the projects carried out for the disaster victims.
- ✓ Support to Life Association has included repair and renewal activities in the projects and corporate reports it has handled similarly.

Semi-Structured Interview

To learn the current situation and attitude toward the future of reverse logistics in the humanitarian supply chain, a semi-structured interview questionnaire was directed to 6 experienced and expert people in humanitarian aid organizations. The questions directed to the experts within the scope of this interview are as follows (Pretti et al.2015:262).

- 1. What does the concept of "Reverse Logistics" mean to you?
- 2. What is your organization's approach to reverse logistics perspective and practices?

- 3. What are your thoughts on how reverse logistics processes and practices can be applied to humanitarian aid operations in the context of sudden-onset (earthquake, fire, flood, and landslides) and slow-onset disasters (drought and famine)?
- 4. Can reverse logistics be applied to disaster relief supplies (needed vital needs and safety items, medical supplies, and tools and equipment used for first aid responses) in humanitarian aid operations?
- 5. Does your organization carry out any recycling activities? If so, which goods does this apply to, and how is it carried out?

These questions, taken from the study of Pretti et al. (2015), were directed to experienced and expert people working in humanitarian organizations in Türkiye. The answers given to the semi-structured interview questionnaire were reflected in the tables.

Table A Company	v Information and	l Titles of Humanita	rian Sunnly Chair	Managers Interviewed
Tuble 4. Company	y mjormation ana	i incles of mumumumu	пап зарріу спап	wullugers intervieweu

Code	Company Information	Titles
1	Logistics Association	vice president
2	AFAD	Expert
3	Turkish Red Crescent	Support Services Director
4	Turkish Red Crescent	Logistics Operations Specialist
5	Turkish Red Crescent	System Integration Specialist
6	AFAD	Expert

Table 5. Explanations of the participants for the concept of "Reverse Logistics."

1	Product and empty container returns
2	Recycling, recycling of inert and used raw materials.
	In our organization, the concept of reverse logistics is divided into two classes commercial products and
3	humanitarian aid materials. There may be a balance movement of the materials in the disaster area, sometimes
3	in different regions. In addition, surpluses are withdrawn to central warehouses. In our commercial activities
	(for example, mineral water), there is a return or returnable product from the customer to the factories.
4	Return the final product from the point of consumption to the end of origin.
5	Recycling of waste materials into production.
6	Recycling - Re-evaluation.

Table 6. Approaches of the participants to the reverse logistics perspective and practices of their organizations

1	It should be encouraged.		
2	Positive. We always support the reverse logistics.		
3	When viewed within the framework of humanitarian aid operations, the material delivery to the disaster area is usually done with the emergency code. Similarly, balance movements between disaster centers are made with the emergency code. For the distribution of the materials remaining in the region after the disaster, their transfer to the different areas is carried out at the standard rate.		
4	The use of reverse logistics is available within our company. We are of the approach that we should do the cost calculation well. Reverse logistics can incur considerable costs in some cases.		
5	With the second-hand textile operation, waste textile products are recycled, contributing to charity activities.		
6	We have container cities within the scope of the shelter. Although I am not sure, I think that expired containers are re-evaluated.		

 Table 7. Opinions on how to implement reverse logistics processes and practices in humanitarian aid organizations.

1	Materials such as tents, container houses, and beds must be collected after use.
2	With a planned and follow-up method.
3	Inventory tracking and traceability, as well as mapping those in need, are essential. As a result, the fact that reverse logistics operations or balancing movements are triggered based on the demands of those in need is experienced in the field.
4	The concept of reverse logistics is an essential issue in humanitarian aid applications. During the application, I think the products that will return to the origin point should be stored in the disaster area or nearby collection centers and then delivered to the first point.
5	Prefabricated houses, tents, blankets, and kitchen utensils can be used for quick solutions in humanitarian aid operations in disaster situations.
6	Tents, kitchen sets, etc., given to disaster victims materials can be re-evaluated and repaired after the end of their intended use and can be made ready for use.

7	Table 8. Opinions on the application of reverse logistics to disaster relief materials in humanitarian aid operations			
	1	Yes, the containers in which the materials are carried can be reused.		
	2	Yes.		
	3	All materials that will meet the demand of the needy are included in this scope.		
	4	Reverse logistics can actually be used in every field. I think that reverse logistics can be applied in many aid materials in humanitarian aid activities.		
	5	Yes, many vital needs and shelter materials can be used in humanitarian aid operations as they are produced in a reusable form.		
	6	It's a costly industry. It can be applied for effective resource management.		

Table 9. Opinions on the situation of the organization performing any recycling activities

- **1** There is no reverse logistics in the activities of the association.
- 2 It supports recycling.
- 3 Secondhand textile operation is carried out (A value chain is operated for the reuse of used clothing).
- 4 There is a reverse logistics process in our Afyonkarahisar mineral water factory. We have returnable (with deposit) mineral waters that we send to dealers. These mineral waters are sent to the dealers in the safe. Then, the empty bottles are collected in the crate and returned to the factory.
- 5 Along with the second-hand textile operation, recycling activities are carried out for textile products.
- 6 I do not know the subject in the context of the department I work for.

First, the question was posed, "What does the concept of "Reverse Logistics" mean to you?" The results of the answers regarding this issue are shown in Table 5.

Second, the question was posed, "What is your organization's approach to reverse logistics perspective and practices?". The results of the answers regarding this issue are shown in Table 6.

Third, the question was posed, "What are your thoughts on how reverse logistics processes and practices can be applied to humanitarian aid operations in the context of sudden-onset (earthquake, fire floods, and landslides) and slow-onset disasters (drought and famine)?". The results of the answers regarding this issue are shown in Table 7.

Fourth, the question was posed, "Can reverse logistics be applied to disaster relief supplies (vital necessities and safety items needed, medical supplies and tools and equipment used for first aid interventions) in humanitarian aid operations?". The results of the answers regarding this issue are shown in Table 8.

Finally, "Does your organization carry out any recycling activities? If so, for which goods does this apply, and how is it carried out?" question was posed. The results of the answers regarding this issue are shown in Table 9.

Conclusion

The humanitarian supply chain that disaster relief agencies manage throughout the operation plays a vital role in saving lives and healing the devastation caused by disasters and crises. In line with the humanitarian supply chain purpose, it provides maximum benefit in terms of medical aid, food, shelter, and drinking water to victims of emergencies and disasters. It delivers the right amount of disaster relief materials needed to the right demand points in a short time. Management of disaster relief supplies delivered to victims is a critical issue in the humanitarian supply chain. It is essential for the success of the humanitarian supply chain that the donated funds and resources are limited and that social, economic, and environmental factors are not ignored during the operation.

Natural disasters can be caused by entirely natural causes as well as by people harming nature. The deterioration of the ecosystem, the overuse of natural resources, and the pollution of the earth pave the way for natural disasters. In this respect, humanitarian aid organizations attach particular importance to the understanding of "not harming the environment and individuals" (Peretti et al.,2015) during disaster operations due to natural disasters that have increased recently.

Although reverse logistics, one of the essential key processes in ensuring the sustainability and success of the supply chain, has become widespread in the traditional commercial supply chain, and its application areas have increased, this situation is insufficient in the humanitarian supply chain. In addition, it is vital for disaster relief organizations to adopt reverse logistics practices in humanitarian supply chain management and operations in terms of the sustainability of scarce resources and the process. In this direction, the study aims to analyze the usage area of reverse logistics in humanitarian supply chain management and show where it can be applied.

A total of 65 institutional annual reports and 79 publications of AFAD, Turkish Red Crescent, IHH Humanitarian Relief Foundation, and Support to Life Association, which are among the disaster relief organizations in Türkiye, were handled, and the application and usage areas of reverse logistics were investigated by content analysis method. As a result of the study, it is seen that among the reverse logistics processes of disaster relief organizations, only repair, renewal, and recycling are generally included. Peretti et al. (2015) stated that it is not surprising that aid organizations prioritize a forward flow rather than a reverse flow in the supply chain due to the aim of maximizing donated funds and resources to victims and the increasing number of

victims. Studies in the literature, in which the humanitarian supply chain and reverse logistics are handled together, stated that reverse logistics in the humanitarian supply chain is insufficient and incomplete, similar to the research results (see Ye and Yan (2020), Peretti et al. (2015) and Kovacs (2011)).

According to the findings obtained as a result of semistructured interviews, experts in humanitarian aid organizations stated that they also have knowledge about reverse logistics, their organizations' approach to reverse logistics is positive, and they include some reverse logistics applications. This contributes to corporate sustainability by reducing costs and recycling processes in humanitarian supply chains.

It was stated that reverse logistics processes should be applied, and it has been noted that it is used for beverage materials such as textile products, shelter materials, and glass bottles, among the aid materials. The fact that aid organizations carry out such activities shows that they act in line with the understanding of not harming the environment and the individual. They consider reverse logistics, which is among the successful supply chain processes.

In line with experts' opinions in aid organizations, it has been stated that reverse logistics processes will provide cost-effectiveness in the future. This is important for the efficient and effective use of resources and donated funds in terms of financial performance. It also supports the aim of creating positive social, environmental, and economic impacts on the population affected by disasters.

Adopting reverse logistics processes in humanitarian supply chain management by disaster relief organizations can ensure efficient and cost-effective reuse and recycling of disaster relief supplies. Also, through reverse logistics, successful management of disaster relief supplies can be achieved, and wastes that need to be disposed of appropriately can be significantly reduced.

Extended Abstract

The humanitarian supply chain, which has an important place in aid organizations and disaster operations, aims to provide maximum benefits in terms of medical aid, food, shelter, and drinking water to victims of emergencies and disasters. It also aims to allocate and quickly distribute the right amount of material needed to the right demand points (Tomasini and Wassenhove, 2009; Dubey and Gunasekaran, 2015; Özdemir et al.2021). In humanitarian aid operations, the humanitarian supply chain is vital in delivering food, shelter, medicine, and first aid needs to disaster victims (Thomas and Kopczak, 2005). Supply chain and logistics constitute 80% of the costs incurred in these operations (Van Wassenhove, 2006).

In particular, an effectively and efficiently managed humanitarian supply chain enables humanitarian organizations to make the best use of their resources, allocating the right amount of material needed to the appropriate demand points as soon as possible, under limited financial constraints. Making the best use of donated funds, using the least amount of resources within the scope of the activities carried out, and reducing the urgent needs of a population sustainably, are associated with the success of humanitarian supply chain operations (Wassenhove, 2006).

There are key supply chain processes in thriving supply chain management. Systematic handling of reverse logistics, one of the key processes in the supply chain, is becoming an ecological, economic and legal obligation (Nakıboğlu, 2007). Reverse logistics can be defined as the movement of products from the consumer to the producer in a distribution channel. This process includes product acceptance, renewal, remanufacturing, recycling, and disposal. Reverse logistics, the recovery, and reuse of products, mainly reduce waste disposal, extraction of raw materials and emissions from transport and distribution (Turrisi et al.,2012), reducing negative impacts on the environment and saving landfill space, fuel and costs (Sarkis et al.,2010).

In this process where saving human life is in question and no profit motive is pursued, aid organizations focus only on forward flow. Reverse logistics is often ignored and not positioned in the process. Reverse logistics in the commercial supply chain is "The process of planning, implementing, and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements." (Rogers and Lembke, 1999).

It is expected that reverse logistics reduce or prevent environmental damage and that the activities involved in the process will be carried out at the "least cost" to the environment. (Sarkis et al.,2010). This situation reflects the desire of humanitarian aid organizations to "do not harm" to the environment and the individual (Peretti et al.,2015). In addition, considering the purpose of the humanitarian supply chain to create positive social, environmental, and economic effects on the population affected by disasters, it is essential for the sustainability of resources and the process that they adopt reverse logistics practices in the disaster management process.

In this direction, content analysis and semi-structured interviews, among the qualitative analysis methods, were used. Content analysis is defined as "a technique that provides a methodical, systematic, objective and, if possible, quantitative examination of the content of various texts to classify and interpret their basic elements that do not lend itself directly to naive reading." (Bilgin, N.2006). The most prominent data sources suitable for content analysis; are texts traditionally ascribed meaning, such as oral discourse, written documents, and visual representations (Krippendorff, 1989).

The research sample consists of humanitarian aid organizations AFAD, Turkish Red Crescent, IHH Humanitarian Relief Foundation, and Support to Life Humanitarian Aid Association, which have annual institutional reports on their website. Institutional reports of UMKE, AKOM, and TAF are not available on their official websites. In the study, the annual reports of these organizations involved in disaster and emergency planning studies in Türkiye between the years 2017-2021 were first examined using the keywords determined in Table 1 with the content analysis method.

According to the analysis results.

- ✓ AFAD mainly included renewal, disposal, and repair activities in its corporate report and publications within reverse logistics processes. The report dealt with the renewal of the regions at risk of disaster in cities, experiencing infrastructure bottlenecks, losing their old value and function, and low quality of space, taking into account the social, economic, environmental, and aesthetic dimensions. It also discussed the replacement rates of disaster relief materials and equipment within the scope of performance indicators.
- The Red Crescent stated its repair, renovation, and recycling activities within the scope of its projects and aids in places damaged by disasters.
- IHH Humanitarian Relief Foundation included repair and renewal activities among the projects carried out for the disaster victims.
- Support to Life Association has included repair and renewal activities in the projects and corporate reports it has handled similarly.

After the reviewed reports and publications, a semistructured questionnaire was directed to experienced and expert people working in humanitarian organizations and associations. Researchers frequently prefer a semi-structured interview as it has a certain level of standardization and flexibility, eliminates limitations in tests and questionnaires based on writing and filling and helps to gain in-depth information on a particular subject (Yıldırım and Şimşek, 2003). Semi-structured interviews are not as rigid as structured interviews and not as flexible as unstructured interviews; located between the two (Karasar, 1995).

The questions in the interview forms directed to six experts were adapted from the study of Pretti et al. (2015). In line with the answers to these questions, it has been tried to learn the current situation regarding the experts' reverse logistics processes, the institutions' approach to reverse logistics, and whether reverse logistics processes are included in the practices. According to the results obtained, it has been seen that experts and institutions have knowledge about reverse logistics and that the institutional approaches are positive, but there need to be more applications. The results of the study show parallelism with the literature. Studies in the literature stated that reverse logistics in the humanitarian supply chain needs to be more complete and complete (see Ye and Yan (2020), Peretti et al. (2015) and Kovacs (2011)).

In line with experts' opinions in aid organizations, it has been stated that reverse logistics processes will provide costeffectiveness in the future. This is important for the efficient and effective use of resources and donated funds in terms of financial performance. It also supports the aim of creating positive social, environmental, and economic impacts on the population affected by disasters.

Adopting reverse logistics processes in humanitarian supply chain management by disaster relief organizations can ensure efficient and cost-effective reuse and recycling of disaster relief supplies. Also, through reverse logistics, successful management of disaster relief supplies can be achieved, and wastes that need to be disposed of appropriately can be significantly reduced. This can make a significant contribution to the sustainability of the process and the success of the human supply chain.

References

- Agrawal, Saurabh, Rajesh K. Singh, and Qasim Murtaza. A Literature Review and Perspectives in Reverse Logistics. Resources, Conservation and Recycling 97, pp.76-92.
- Aslanzadeh, M., Rostami, E.A. and L. Kardar. (2009). Logistics Management and SCM in Disasters.In: R. Zanjirani Farahani, H, Davarzani (eds). Supply Chain and Logistics in National, International and Governmental Contributions to Management Science. New York: Springer-Verlag Berlin Heidelberg.
- Aydın, N. (2020). Designing Reverse Logistics Network of End-Of-Life-Buildings as Preparedness to Disasters Under Uncertainty. Journal of Cleaner Production, 256, pp.1-11.
- Balcik, B., and Beamon, B. M. (2008). Facility Location In Humanitarian Relief. International Journal of Logistics Research and Applications, 11(2), 101–121.
- Behl, A. and Dutta, P. (2019). Humanitarian Supply Chain Management: A Thematic Literature Review and Future Directions of Research. Ann Oper Res, 283, pp.1001–1044.
- Bilgin, N. (2006). Sosyal Bilimlerde İçerik Analizi Teknikler ve Örnek Çalışmalar, Siyasal Kitapevi.
- Brito, M. P. and Dekker, R. (2002). Reverse Logistics A Framework. Econometric Institute.
- Dowlatshahi, S. (2000). Developing A Theory of Reverse Logistics. Interfaces, 30 (3), pp.143-155.
- Dubey, R. and Gunasekaran, A. (2015). The Sustainable Humanitarian Supply Chain Design: Agility, Adaptability and Alignment. International Journal of Logistics Research and Applications, 19(1), pp.62-82.
- Garcia-Sánchez, E., Guerrero-Villegas, J. and Aguilera-Caracuel, J. (2019). How Do Technological Skills Improve Reverse Logistics? The Moderating Role of Top Management Support in Information Technology Use and Innovativeness. Sustainability, 11(1), pp. 1-17.
- Gardas, B. B., Raut, R. D. and Narkhede, B. (2018). Reducing the Exploration and Production, of Oil: Reverse Logistics in the Automobile Service Sector. Sustainable Production and Consumption, 16, pp.141-153.
- GHA (2020). Global Humanitarian Assistance (GHA) Report 2020, Global Humanitarian Assistance, London. https://devinit.org /resources/global-humanitarian-assistance-report-2020/, date of access: 13.09.2021.
- Han, H. and Trimi, S. (2018). A Fuzzy TOPSIS Method For Performance Evaluation of Reverse Logistics in Social Commerce Platforms. Expert Systems with Applications, 103, pp.133-145.
- Haavisto, I. and Kovacs, G. (2014). Perspectives on Sustainability in Humanitarian Supply Chains. Disaster Prevention and Management, 23(5), pp.610-631.
- Hu, Z.-H. and Sheu, J.-B. (2013). Post-Disaster Debris Reverse Logistics Management Under Psychological Cost Minimization.
 Transportation Research Part B: Methodological, 55, pp. 118-141.
- John, L. (2017). Review of Empirical Studies in Humanitarian Supply Chain Management: Methodological Considerations, Recent Trends and Future Directions, G. Kovács et al. (eds.), The Palgrave Handbook of Humanitarian Logistics and Supply Chain Management (637-673), https://doi.org /10.1057/978-1-137-59099-2 22.
- Karabag, S. F. (2020). An Unprecedented Global Crisis! The Global, Regional, National, Political, Economic and Commercial Impact

of the Coronavirus Pandemic. Journal of Applied Economics and Business Research 10(1): 1-6.

- Karasar, N. (1995). Bilimsel Araştırma Yöntemi. Ankara: 3A Araştırma Eğitim Danışmanlık.
- Kovacs, G. and Spens, K.M. (2007). Humanitarian Logistics in Disaster Relief Operations. International Journal of Physical Distribution & Logistics Management, 37(2): 99-114.
- Kovacs, G. and Spens, K.M. (2011). Trends and Developments in Humanitarian Logistics – A Gap Analysis. International Journal of Physical Distribution & Logistics Management 41(1): 32-45.
- Kovács, G. (2011). So where next? Developments in humanitarian logistics, in Christopher, M.G. and Tatham, P.H. (Eds), Humanitarian Logistics: Meeting the Challenge of Preparing for and Responding to Disasters, Kogan Page, London.
- Kunz, N. and Reiner, G. (2012). A Meta-Analysis of Humanitarian Logistics Research. Journal of Humanitarian Logistics and Supply Chain Management, 2(2):116-147.
- Laguna- Salvado, L., Lauras, M, Okongwu, U. and Comes, T. (2019). A Multicriteria Master Planning DSS For A Sustainable Humanitarian Supply Chain. Annals of Operations Research 283 (1-2), pp.1303-1343.
- Monica, C. and Andreas, P. (2011). A proposal of Reverse Logistics applied in Humanitarian Relief Actions Donations Identification and Reallocation – A Humanitarian Logistics View. Jönköping University, Master's Thesis İsveç.
- Nakıboğlu, G. (2007). Tersine Lojistik: Önemi ve Dünyadaki Uygulamaları. Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 9(2), pp.181-196
- Özdemir, A., Erol, I., Ar, I.M., Peker, I., Asgary, A., Medeni, T.D. and Medeni, I.T. (2021). The Role of Blockchain in Reducing the Impact of Barriers to Humanitarian Supply Chain Management. The International Journal of Logistics Management, 32(2), pp.454-478.
- Patton, M. Q. (2005). Qualitative Research. New York: John Wiley & Sons, Ltd.
- Peretti, U., Tatham, P., Wu, Y. and Sgarbossa, F. (2015). Reverse Logistics in Humanitarian Operations: Challenges and Opportunities. Journal of Humanitarian Logistics and Supply Chain Management, 5(2), pp.253-274.
- Pettit, S. and Beresford, A. (2009). Critical Success Factors in The Context of Humanitarian Aid Supply Chains. International Journal of Physical Distribution & Logistics Managemen, 39(6), pp.450-468.
- Richardson, B. (1994). Crisis Management and Management Strategy Time to "Loop the Loop"?. Disaster Prevention and Management, 3(3): 59-80.
- Rogers, D.S. and Tibben-Lembke, R.S. (1999). Going Backwards: Reverse Logistics Trends and Practices, RLEC Press, Pittsburgh, PA, p. 2
- Rogers, D. and Lembke, R.T. (2001). An Examination of Reverse Logistics Practices. Journal of Business Logistics, 22(2), pp.129-148.
- Sahay B.S., Menon N.V.C. and Gupta S. (2016). Humanitarian Logistics and Disaster Management: The Role of Different Stakeholders. In: Sahay B., Gupta S., Menon V. (eds) Managing Humanitarian Logistics. Springer Proceedings in Business and Economics, New Delhi. https://doi.org /10.1007/978-81-322-2416-7_1.
- Sarkis, J., Helms, M.M. and Hervani, A.A. (2010). Reverse Logistics and Social Sustainability. Corporate Social Responsibility and Environmental Management, 17, pp.337– 354.
- Sarkis, J., Spens, K.M. and Kovács, G. (2012). A Study of Barriers to Greening The Relief Supply Chain. in Kovács, G. and Spens, K.M.

(Eds), Relief Supply Chain Management for Disasters: Humanitarian Aid and Emergency Logistics, IGI(Global), Hershey, PA, pp. 196-205.

- Senthil, S., Murugananthan, K. and Ramesh, A. (2018). Analysis and Prioritisation of Risks in A Reverse Logistics Network Using Hybrid Multi-Criteria Decision-Making Methods. Journal of Cleaner Production, 179, pp.716-730.
- Sheu, J.-B. (2007). Challenges of Emergency Logistics Management. Transportation Research: Part E, 43(6): 655-659.
- Taşdoğan, O. (2018). Türkiye'de Faaliyet Gösteren İnsani Yardım Kuruluşlarının Lojistik Performans Değerlendirmesi. Hasan Kalyoncu Sosyal Bilimler Enstitüsü, Yüksek Lisans Tezi, Gaziantep.
- Thierry, M., Salomon, M., Nunen, J. and Wassenhove, L., (1995). Strategic Issues in Product Recovery Management. California Management Review, 37(2), pp.114-135.
- Thomas, A.S. and Kopczak, L.R. (2005). From Logistics to Supply Chain Management: The Path Forward in The Humanitarian Sector. Fritz Inst. 15, pp.1-15.

Thomas, A. (2003), "Why logistics?", Forced Migration Review, 18:4.

- Tomasini, R. M. and Van Wassenhove, L. N. (2009). From Preparedness to Partnerships: Case Study Research on Humanitarian Logistics. International Federation of Operational Research Societies, 16(5), pp.549–559.
- Turrisi, M., Bruccoleri, M. and Cannella, S. (2012). Impact of Reverse Logistics on Supply Chain Performance. International Journal of Physical Distribution & Logistics Management, 43(7), pp.564-585.
- Ulugergerli, F. (2021). Afet Tedarik Zinciri Yönetimi: Nitel Bir Araştırma. Dirençlilik Dergisi 5(1), pp.1-20.
- USAID (2020). Sustainability in Humanitarian Supply Chains: A Preliminary Scoping of Improvements in Packaging, ICF and The Cadmus Group LLC, https://www.usaid.gov/sites /default/files/documents/Packaging_Waste_Management_Sc oping_Statement_508.pdf, date of access: 22.06.2022.
- Wassenhove, V. (2006). Humanitarian Aid Logistics: Supply Chain Management in High Gear. Journal of the Operational Research Society, 57 (5), pp. 475–489.
- Ye, Y. and Yan, H. (2020). Disaster Relief Supply Management. Natural Hazards Impacts, Adjustments and Resilience, Edt.Ehsan Noroozinejad Farsangi, e-Kitap (PDF) ISBN: 978-1-83962-307-3.
- Yıldırım, A. and Şimşek, H. (2003). Sosyal Bilimlerde Nitel Araştırma Yöntemleri. Ankara: Seçkin Yayınları.
- WHO (2021), WHO Coronavirus (COVID-19) Dashboard, https://covid19.who.int/, date of access: 01.08.2021.

Web

- IFRC (2022), "What Is A Disaster", ttps://www.ifrc.org/whatdisaster#:~:text, date of access: 21.06.2022.
- UN, (2022). https://www.un.org/jsc/content/new-wayworking#:~ :text=, date of access: 22.06.2022.
- UNHRD, (20229. https://unhrd.org/yir/2020/, date of access: 22.06.2022.

URL 1, AFAD (2021), Kurumsal Raporlar, https://www.afad .gov.tr/kurumsal-raporlar, date of access :10.12.2021.

URL 2, Kızılay (2021), Kurumsal Raporlar, https://www. kizilay.org.tr/Raporlar, date of access:10.12.2021.

URL 3, İHH İnsani Yardım Vakfı (2021), https://www. ihh.org.tr/yayin/rapor, date of access:11.12.2021.

URL 4, Hayata Destek Derneği (2021), https://www .hayatadestek.org/yayinlar/, date of access: 12.12.2021.



The Effect of Urbanization On Tax Revenues In Türkiye: A Review for The Period 1972-2021

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Research Article	ABSTRACT
History	Urbanization has gained significant momentum in the past century worldwide. In particular, developing countries have experienced an increase in rural to urban migration, leading to rapid growth in urban populations. A similar process has occurred in Türkiye as well. The sociological and cultural structure that emerges from the
Received: 09/05/2023 Accepted: 17/07/2023	A similar process has occurred in rurkiye as well. The sociological and cultural structure that energies from the increase in urban population has a significant impact not only in various fields but also on tax revenues, which is one of the instruments of fiscal policy. The concentration of a large portion of the population in cities has increased the number of businesses and residences, which naturally resulted in an increase in economic activities in urban areas. The increase in economic activities led to consequences such as more employment, production, and consumption. Urbanization has become an essential factor in determining tax policies due to the increase in demand for public goods and services resulting from population density in cities. The main objective of this study
Jel Codes: H2, O18, C32	is to analyze the effect of urbanization on tax revenues in Türkiye for the period between 1972 and 2021. The relationship between variables was examined using the Fourier cointegration test by Tsong et al. (2016). According to the analysis results, a long-term relationship between urbanization and tax revenues was found. A 1% increase in the share of the urban population in the total population increases the share of tax revenues in GDP by approximately 0,08%. Consequently, the empirical findings obtained in the study demonstrate that urbanization has a positive impact on tax revenues.

Keywords: Tax Revenues, Urbanization, Fourier Unit Root Test, Fourier Cointegration Test.

Türkiye'de Kentleşmenin Vergi Gelirleri Üzerindeki Etkisi: 1972-2021 Dönemi İçin Bir İnceleme

	ÖZ
	Dünya genelinde kentlesme süreci son yüzyılda büyük bir hız kazanmıştır. Özellikle gelismekte olan ülkelerde
Süreç	kırsal alandan kente göçler artmış ve bu durum kent nüfusunun hızla yükselmesine neden olmuştur. Benzer bir
Geliş: 09/05/2023 Kabul: 17/07/2023	süreç Türkiye'de de yaşanmıştır. Kent nüfusunun artmasıyla ortaya çıkan sosyolojik ve kültürel yapının, birçok alanda yarattığı etkinin yanı sıra maliye politikası araçlarından biri olan vergi gelirleri üzerindeki etkisi de büyük bir önem taşımaktadır. Nüfusun büyük bir oranda kentlerde toplanması, işletme ve konut sayısını arttırmış ve bu durum doğal olarak şehirlerdeki ekonomik faaliyetlerin de artmasına neden olmuştur. Ekonomik faaliyetlerin artması, daha fazla istihdam, daha fazla üretim ve tüketim gibi sonuç doğurmuştur. Şehirlerdeki nüfus
Jel Kodları: H2, O18, C32	yoğunluğundan kaynaklı kamusal mal ve hizmet talebinde meydana gelen artış nedeniyle kentleşme, vergi politikalarını belirlemede önemli bir unsur haline gelmiştir. Bu çalışmanın temel amacı, Türkiye'de 1972-2021 dönemi için kentleşmenin vergi gelirleri üzerindeki etkisini analiz etmektir. Seriler arasındaki ilişki, Tsong ve ark. (2016) Fourier eşbütünleşme testi ile incelenmiştir. Analiz sonuçlarına göre, kentleşme ve vergi gelirleri arasında uzun dönemli bir ilişki tespit edilmiştir. Kent nüfusunun toplam nüfus içindeki payında meydana gelen %1'lik bir artış, vergi gelirlerinin GSYİH içindeki payını yaklaşık olarak %0,08 oranında arttırmaktadır. Sonuç olarak
Copyright	çalışmada elde edilen ampirik bulgular; Türkiye'de kentleşmenin vergi gelirlerini arttıran bir etkiye sahip olduğunu göstermektedir.
Creative Commons Attribution 4.0 International License	Anahtar Kelimeler: Vergi Gelirleri, Kentleşme, Fourier Birim Kök Testi, Fourier Eşbütünleşme Testi.
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Giriş

Devletler, toplumun ihtiyaç duyduğu mal ve hizmet sunumunu yerine getirebilmek için kaynaklara ihtiyaç duymaktadır. Bu harcamaların finansmanının sağlanmasında vergiler, kamunun en önemli gelir kaynağıdır. Kamu harcamalarını karşılanması amacı için özel ve tüzel kişilerden alınan ekonomik değerlerler olarak tanımlanan vergiler, ülkelerin büyüme ve kalkınmalarının sağlanmasında önemli bir yere sahiptir (Nadaroğlu, 1996. s.262). Hükümetlerin, gerçekleştirmek zorunda oldukları görevlerini vergi gelirleri ile karşılaması neticesinde, vergi gelirlerinin ve vergilendirmeye konu olan kaynakların arttırılmasını sağlamak beklenen bir durumdur. Vergi oranlarının arttırılması, vergi yükünü arttıran, vergi kaçırmaya veya vergiden kaçınmaya yol açan etkilere sahiptir. Bu durum kamu finansmanı ve ekonomik kalkınma sağlanabilmesi için önemli bir politika aracı olma özelliğine sahip olan vergi gelirlerinin optimal düzeyde tutmanın gerekliliğini göstermiştir (Özhan ve Keyifli, 2020, s.393). Ayrıca vergilendirme, kaynakların özel sektörden kamu sektörüne aktarmanın önemli bir yolu olarak görülmektedir. Hükümetlerin kamu borçlanmasına başvurmadan temel harcamaları karşılamanın önemli bir yolu olarak vergilendirmeyi görmesi, konunun önemini daha da arttırmaktadır (Kutbay, 2019, s.604).

Ekonomik, kurumsal, sosyal ve kültürel olmak üzere vergi gelirlerini belirleyici birçok farklı faktör bulunmaktadır. Kamu borçları, ekonomik büyüme, kişi başı GSYİH, yolsuzluk, istihdam, işsizlik, nüfus artış hızı, vergi politikaları, yoksulluk, dışa açıklık, fiyatlar genel düzeyinde artış ve kentleşme, vergi gelirlerini etkileyen faktörler arasında öne çıkmaktadır (Tanzi ve Davoodi, 2000; Bahl ve Wallace, 2005; Öztürk ve ark., 2019, s.39). Aşağıda vergi gelirlerini belirleyicileri, başka bir ifade ile vergi gelirlerini etkileyen faktörler kısaca açıklanmıştır.

Fiyatlar genel düzeyindeki artış, zaman içerisinde vergi yapısına göre vergi gelirleri üzerinde birtakım olumsuz etkiler gösterebilmektedir. Literatür incelendiğinde bu etkilerden birinin "Tanzi etkisi" olduğu görülmektedir. Tanzi etkisi, verginin tahakkuk ile tahsilât işlemleri esnasında gecikmeye bağlı olarak enflasyonun, vergi gelirlerinin reel değerini azaltması olarak ifade edilebilir. Gecikmeye bağlı olarak verginin reel değerinde meydana gelen aşınmalar hesaplanmaktadır (Tanzi, 1980, s.76). Genel fiyat seviyelerinde meydana gelen değişmeler ise reel vergi yüklerini bazı kanallar yoluyla etkilemektedir. Bu kanallar; vergi matrahı üzerindeki etkisi, vergi tarifesine etkisi ve vergi yükümlülüklerinin gerçek değeri üzerindeki etkisidir (Immervoll, 2000, s.2). Ekonomik büyüme, vergi gelirlerini etkileyen unsurlar arasında önemli bir yere sahiptir. Ekonomik büyümenin önemli en göstergelerinden biri olarak kişi başına gelir seviyesi kabul edilmektedir. Bir ülkede dolaylı vergilerin dolaysız vergilere oranla yüksek ve kayıt dışı ekonominin de yüksekliği söz konusu ise kişi başına gelir seviyesinin vergi gelirleri üzerinde olumsuz etkileri gözlemlenebilmektedir (Chaudhry ve Munir, 2010). Bunun yanı sıra vergi gelirlerinin GSYİH artış oranından daha yüksek olması ark., 2019, s.49). Aynı zamanda vergi gelirlerinin ekonomik yapı ile yakın ilişkisi ekonomi yönetimlerinde faaliyet alanlarının genişlemesiyle sonuçlanmaktadır. Genel olarak ekonomik büyümenin gerçekleştiği dönemlerde vergi gelirlerinde artış; ekonomik büyümenin azaldığı, ekonominin daraldığı dönemlerde ise azalış meydana gelmektedir (Aydınbaş ve Erdinç, 2022, s.803). Enflasyon, vergi gelirlerini doğrudan etkileyen unsurlar arasında kabul edilir. Enflasyonun mali alanlarda büyük sakıncaları bulunmaktadır. Devletin tahsil ettiği dolaysız vergiler tahsil bakımından peşin vergiye dönüştürülmediği taktirde vergi gelirleri değer kaybına uğramaktadır. Bu nedenle gerekli tedbirler alınmazsa bütce acıkları da artış eğilimi göstermektedir (Türk, 2010, s.96). Devlet ve devlete ait kurum ve kuruluşların gelir-harcama dengesinin bozulmasından kaynaklanan kamu açıkları neticesinde finansman sorunları gündeme gelmektedir. Kamu açıklarının finansmanında vergilerin yükseltilmesi, borçlanma veya parasal genişleme volu tercih edilebilmektedir. Bu durum neticesinde ülkelerde borç yüklerinin artması ile faizlerin yükselmesi; enflasyon sorunlarının ortaya çıkmasına neden olmaktadır (Sağlam ve Uğurlu, 2013, s.72). Vergilerin, karşılıksız ve cebri kamu geliri özelliği taşıması, ekonomik ve sosyal amaçlara ulaşmada etkin bir müdahale aracı olması nedeniyle ekonomik anlamda kalkınmanın önemli bir unsuru olarak görülebilir. Aynı zamanda vergiler sosyal ve ekonomik olarak birçok farklı etki meydana getirmektedir. Bu etkiler; vergiler yoluyla sektörler ve kişiler arasında gelir dağılımının eşitlenmesi, ekonomide tam istihdamın sağlanması gibi konularda etkinliği sağlayabileceği için ülkelerde belirlenen ve uygulanan vergi politikaları ayrı bir önem taşımaktadır (Türk, 2010, s.70-307). Bir ekonomide dışa açıklık seviyesinin yüksekliği ve yabancı sermaye girişinde artışların olması vergi tabanını genişletmektedir. Vergi gelirlerinde meydana gelen bu konjonktürel artışlar ülke ekonomisine olumlu katkılar sağlamaktadır. Bunun yanı sıra gelişmekte olan ülkelerin bazılarında dış ticaretten sağlanan vergilerin yüksek olduğu görülmektedir. Bu durumun nedeni, ithal malların yerli mallara göre daha kolay vergilendirilmesidir. Bu nedenle ülkelerin dış ticaret potansiyeli, vergi gelirleri üzerinde önemli bir role sahiptir (Çalcalı ve Altıner, 2019, s.179). Kamunun, elinde bulundurduğu gücü kişisel çıkarları doğrultusunda kötüye kullanımı olarak ifade edilen yolsuzluk, düzensiz vergi istisnaları ve zayıf vergi idaresi gibi olumsuz durumların oluşmasına zemin hazırladığı için vergi gelirleri üzerinde olumsuz etkilere sahiptir (Aydınbaş ve Erdinç, 2022, s.803). Bu etkilerin yanı sıra yolsuzluğun vergi uyumunu bozan ve vergi kaçırmayı arttıran etkileri de söz konusudur (Epaphra ve Massawe, 2017, s.439; Torgler, 2004). Kayıt dışı ekonominin boyutu da vergi gelirleri üzerinde önemli bir etkiye sahiptir. Kamu otoritesi, kayıt dışı ekonominin yüksekliği neticesinde vergi gelirlerinde meydana gelen azalmayı telafi edebilmek için mükelleflerin vergi yükünün arttırma veya para basma yoluna gidebilir. Bu durum vergilemede adaletin bozulmasına ve toplumsal huzursuzluğa yol

vergi yükünün artması olarak ifade edilebilir (Öztürk ve

acmaktadır. Avrica faiz oranlarının yükselmesi, yatırımların olumsuz etkilenmesi, istihdamın azalması ve enflasyonun artması gibi ekonomik olumsuzluklara sebep olabilmektedir (Bakkal, 2007, s.91). Nüfus, gelişmekte olan ülkeler için üretim, istihdam gibi temel aktörlerin lokomotifi olarak kabul edilmektedir. Nüfusun yoğunluğu, yapısı, artış hızı, yaş dağılımı gibi özellikleri vergi gelirlerini etkileyen unsurlardandır. Nüfus yoğunluğunun yüksek olması, kamusal mal ve hizmet talebinin artmasına neden olacak ve sonuç itibariyle kamu harcamalarının vergi gelirlerinden daha yüksek oranda gerceklesmesi gibi bir olumsuzlukla sonuçlanacaktır.

Literatürde kentleşme kavramını farklı yönlerden dikkate alan tanımlamalar mevcuttur. Bir tanımda, belirli bir zaman diliminde kentlerde nüfus artışının oluşturduğu ekonomik ve toplumsal yapıda meydana gelen değişimi belirleyen bir sürec olarak ifade edilmektedir. Ancak kentleşmeyi sadece nüfus hareketine indirgemek doğru değildir. Ekonomik, teknolojik, sosyal ve siyasal şartların etkisiyle insanların tutum ve davranışlarının değişmesine imkân sağlayan bir süreç olarak görülebilir (Zeren ve Kılınç Savrul, 2017, s.88). Bunun yanı sıra kentleşme, sanayileşme ve ekonomik gelişmenin bir sonucu olarak yeni kentlerin doğmasına, mevcut kentlerin büyümesine, insanların davranış ve ilişkileri üzerinde kentlere özgü değişiklikler oluşturmasına neden olan bir nüfus birikim süreci olarak da ifade edilmektedir (Keleş, 1997). Bir diğer tanımda ise; sanavileşmek için her uluşun yaşamaşı gereken bir dönem, tek yönlü yer değiştirme süreci ve toplumsal dönüşüm süreci olarak açıklanmaktadır (Yılmaz ve Çiftçi, 2011, s.264). İktisadi kalkınmanın önemli ölçütleri arasında kentleşme önemli bir yer tutmaktadır. Kentlerde altyapı, eğitim, sağlık vb. gibi alanlarda yapılan iyileştirmeler sonucunda kentlerin refah seviyesi yüksek yerleşim alanları olma özellikleri taşıdığı görülmektedir. Bu açıdan incelendiğinde; kentleşme ülkelerin büyüme ve kalkınmasında önemli bir araç haline gelmektedir (Bayraktutan ve Alancıoğlu, 2019, s.1842).

Kent nüfusunun artması birçok faktörle ilişkilendirilebilir. Özellikle sanayileşme ile fabrikaların şehirlerde kurulması, şehirlerin büyümesini tetiklemiştir. Şehirlerdeki iş fırsatları, kırsal kesimlerde yaşayan insanları şehirlere doğru yönlendirmiştir. Şehirlerdeki eğitim ve sağlık imkanları, savaş, doğal afetler, politik ve ekonomik nedenler de insanların kırsal kesimlerden şehirlere göç etmesine neden olmuştur (UN-Habitat, 2013).

Yıllar itibariyle artan kent nüfusunun, vergi gelirleri üzerinde nasıl bir etkiye yol açtığının belirlenmesi çalışmanın temel hedefini oluşturmaktadır. Hem vergi gelirlerini arttırmayı hedefleyen ekonomi ve mali alanlarda politika yapıcı ve uygulayıcılarına fikir vermesi hem de kentleşme ve vergi gelirleri arasındaki ilişkiyi spesifik olarak inceleyen çalışmaların yok denecek kadar az olması nedeniyle literatüre katkı sağlaması amaçlanmaktadır. Bu nedenle çalışmada vergi gelirlerinin belirleyici unsurları arasında önemli bir yer tutan kentleşmenin vergi gelirleri üzerindeki etkisi 1972-2021 dönemi için incelenmiştir. Çalışmanın birinci bölümünde Türkiye'de kentleşmenin genel durumu ikinci bölümde kentleşme ve vergi gelirleri ilişkisi ele alınmıştır. Üçüncü bölümde konu ile ilgili yapılan ampirik çalışmaların yer aldığı literatür özeti verilmiştir. Veri seti ve ekonometrik yöntem dördüncü ve beşinci bölümde, ampirik bulgular ve elde edilen sonuçların değerlendirilmesine ise son bölümde yer verilmiştir.

Türkiye'de Kentleşme

Türkiye'de kentlesme hareketi, 1950 öncesi ve sonrası olmak üzere farklı özelliklere sahip iki döneme ayrılabilir. 1950 yılında kadar olan dönemde kırsal nüfusun daha yoğun olduğu görülmektedir. 1950'den sonraki dönemde ise kırsal alanlarda yaşanan yapısal dönüşümlerden kaynaklı olarak kırdan kente göç hızlanmış ve sonuç itibariyle kent nüfusları artmaya başlamıştır (Işık, 2005, s.58). Türkiye nüfusunun kır-kent yerleşim yerine göre dağılımı incelendiğinde, 1927-1950 yılları arasında nüfusun yaklaşık olarak %75'inin kırsal alanlarda yaşadığı görülmektedir. Kırdan kente yapılan göçler neticesinde 2000'li yıllarda bu oran, % 35'lere kadar düşmüştür (Yalçın, 2004, s.113-114). Kırdan kente göç eden bireylerin bir kısmı, kente uyum sağlamada ve kent yaşamını içselleştirmede sorun yaşayabilmektedir. Bu durum beraberinde sosyo-kültürel bakımdan uyumsuzluklar, yabancılık hissi ve kültürel boşluk gibi önemli sorunlara yol acmaktadır. Ayrıca nüfus artışına bağlı olarak siddet ve suc olaylarında görülen artışlar da kentleşmeden kaynaklı bir olgu olarak karşımıza çıkmaktadır. Kentlerde varlık gösteren bu sorunların giderilmesi için "kentsel farkındalık" "kentlileşme", "kent kültürü" ve "kentlilik bilinci" gibi konuların dikkate alınması gerekmektedir (Bayhan, 2022, s.41).

Türkiye'de yıllara göre vergi gelirleri ve kentleşme oranları Çizelge 1'de verilmiştir. Yıllar itibariyle kentleşmenin kararlı bir şekilde arttığı görülmektedir. Vergi gelirleri dalgalı bir dağılım gösterse de genel olarak artan bir trend sergilemiştir.

Kentleşme ve Vergi Gelirleri İlişkisi

Kentleşme ile vergi gelirleri arasındaki ilişki, yüksek nüfus ve daha yüksek ekonomik faaliyetler olmak üzere iki ana nedene dayanmaktadır. Şehirlerdeki nüfus artışı, işletmelerin, konutların ve diğer faaliyetlerin sayısını artırır. Bu da daha fazla işletme vergisi, gayrimenkul vergisi ve diğer vergi türlerinin ödenmesine neden olur. Ayrıca kentleşme ile şehirlerdeki ekonomik faaliyetler de artar. Bu faaliyetler, daha fazla istihdam, daha fazla üretim ve daha fazla tüketim ile sonuçlanır. Bunun sonucunda da şehirlerdeki vergi gelirleri artar (Duranton ve Puga, 2015, s.468). Mahdavi (2008) kırsal kesimin aksine kentlerde artan nüfus yoğunluğunun servet vergileri üzerinde arttıran etkisi olduğunu ifade etmiştir. Kent nüfusunun artması, kamusal mal ve hizmet artışına neden olmaktadır. Ayrıca kentleşme oranının artması, vergilendirmeye konu olabilecek yeni alanlar yarattığı için vergi gelirlerinde bir artışa yol açmaktadır (Tanzi, 1987, s.206; Tanzi ve Zee,

2000, s.5). Kentleşme ile fert başına kamusal mal ve hizmet talebinde meydana gelen artış nedeniyle artan mal ve hizmet talebinin karşılanması için vergi gelirlerinin arttırılmasının gerekliliği ön plana çıkmaktadır (Tanzi, 1987, s.206). Aslında ekonomik yapı içerisinde yer alan tüm unsurların vergi gelirleri üzerinde bir etkisi söz konusudur (Sağdıç, 2019, s.159). Vergi gelirlerinin performansinin içsel ve dışsal birçok faktörden ekonomideki etkilenmesinin yanı sıra bazı faktörlerde gerçekleşen makroekonomik olumlu gelismelerin de vergilerin performansı üzerinde önemli ölçüde iyileştirici etkiler yaratabildiği bilinmektedir (Kutbay, 2019, s.605). Kentleşmede görülen artış, mal ve hizmet sunumuna olan talebin artmasına neden olur. Bu durumda da harcamaları karşılamak için vergi gelirlerinin artmasını gerektirir. Dolayısıyla kentleşme ile vergi gelirleri arasında pozitif bir ilişki olması beklenen bir sonuçtur (Terefe ve Teera, 2018, s.136).

Literatür İncelemesi

Literatürde vergi gelirleri ve vergi gelirlerini etkileyen faktörler ile ilişkisini inceleyen birçok çalışma olduğu görülmektedir. Çizelge 2'de vergi gelirleri ve vergi gelirlerini etkileyen sosyal, kültürel ve ekonomik değişkenlerle ilişkişinin incelendiği literatür özeti verilmiştir.

Literatür incelendiğinde vergi gelirleri ile birçok ekonomik faktörlerle ilişkisinin araştırıldığı görülmektedir. Ancak vergi gelirlerinin belirleyici unsurlarından biri olan kentleşme ile ilişkisinin araştırıldığı çok az sayıda çalışma mevcuttur. Bu nedenle çalışmada kentleşme ve vergi gelirleri arasındaki ilişkinin farklı ekonometrik yöntemler kullanılarak spesifik olarak incelenmesinin literatüre katkı sağlayacağı düşünülmektedir.

Veri Seti

Bu çalışmada dolaylı ve dolaysız vergi gelirlerinin GSYH içindeki payı (VERGİ) ile kent nüfusunun toplam nüfus içindeki payı (KENT) arasındaki ilişki incelenmiştir. 1972-2021 dönemine ait veriler, Dünya Bankası (Worldbank) ve Türkiye İstatistik Kurumu (TUİK) elektronik veri tabanından elde edilmiştir. Çizelge 3'te değişkenlere ait tanımlayıcı istatistikler verilmiştir.

Ekonometrik Yöntem

Fourier KPSS Birim Kök Testi

Kwiatkowski ve ark. (1992), çalışmalarında Dickey-Fuller (1981) ve Phillips-Perron (1988) gibi klasik birim kök testlerinin, serilerin birim köklü olduğunu iddia eden temel hipotezi güçlü bir kanıt bulunmadıkça reddetmede yetersiz kaldığını belirtmişlerdir. Buradan yola çıkarak diğer testlerden farklı olarak temel hipotezi, serinin durağanlığı üzerine kurdukları KPSS birim kök testini geliştirmişlerdir. Becker ve ark. (2006), çalışmalarında KPSS tipi durağanlık testine fourier fonksiyonlarını eklemleyerek Fourier KPSS birim kök testini literatüre

kazandırmışlardır. Fourier yaklaşımının az sayıda düşük frekanslı bileşeninin, çeşitli yapısal kırılmaların davranışlarını yakalayabildiğini göstermişlerdir. Test, yapısal kırılmaların yanında yumuşak geçişleri de dikkate almaktadır. Ayrıca kırılma sayısının önceden tespit edilmesine gerek duymamaktadır. Yapısal kırılmaların sayısı ve biçimi testin gücünü etkilememektedir. Test için veri üretme süreci aşağıdaki şekilde oluşturulur;

$$y_t = X_t'\beta + Z_t'\gamma + r_t + \varepsilon_t \tag{1}$$

(1) numaralı denklemde \mathcal{E}_t , durağan hata terimidir. Deterministik trendde kırılmayı yakalamak icin kullanılan Z_t aşağıdaki şekilde ifade edilir;

$$Z_{t} = \left[\sin\left(2\mu kt / T\right), \cos\left(2\mu kt / T\right) \right]'$$
(2)

(2) numaralı denklemde k, frekans sayısını, t, trendi, T ise gözlem sayısını göstermektedir.

$$y_{t} = \alpha + \gamma_{1} \sin\left(\frac{2\pi kt}{T}\right) + \gamma_{2} \cos\left(\frac{2\pi kt}{T}\right) + e_{t}$$
(3)

$$y_{t} = \alpha + \beta t + \gamma_{1} \sin\left(\frac{2\pi kt}{T}\right) + \gamma_{2} \cos\left(\frac{2\pi kt}{T}\right) + e_{t}$$
(4)

(3) numaralı denklem düzey durağanlık temel hipotezini, (4) numaralı denklem ise trend durağanlık temel hipotezini sınamak icin kullanılır. Fourier KPSS icin test istatistiği aşağıdaki şekilde hesaplanır.

$$\tau_{\mu}(k) \text{ ya da} \qquad \tau_{\tau}(k) = \frac{1}{T^2} \frac{\sum_{t=1}^{l} \tilde{S}_t(k)^2}{\tilde{\sigma}^2} \qquad (5)$$
$$\tilde{S}_t(k) = \sum_{i=1}^{l} \tilde{e}_i$$

(5) numaralı denklemde

j=1 seklinde ifade

edilir. \tilde{e}_{j} , (3) veya (4) numaralı denklemden elde edilen kalıntıları göstermektedir. Uzun dönem varyansın parametrik olmayan bir tahmini olan $ilde{\sigma}^2$, W_j ağırlık seviyelerinin ve / gecikme sayısının seçilmesiyle (6) numaralı denklem elde edilir.

$$\tilde{\sigma}^2 = \tilde{\gamma}_0 + 2\sum w_j \tilde{\gamma}_j \tag{6}$$

Temel hipotez, serinin durağan olduğu şeklinde kurulur. Trigonometrik terimlerin anlamlılığını sınamak için kullanılan test istatistiği (7) numaralı denklem ile elde edilmektedir.

$$F_{i}(k) = \frac{(SSR_{0} - SSR_{1}(k))/2}{SSR_{1}(k)/(T - q)}$$
(7)

Sıfır hipotezi trigonometrik terimlerin anlamlı olmadığı şeklinde kurulur. Trigonometrik terimlerin anlamlı olmaması durumunda standart KPSS testi uygulanır.

Tsong vd. (2016) Fourier Eşbütünleşme Testi

Değişkenler arasındaki uzun dönemli ilişkiyi tespit etmeye yönelik olarak kullanılan eşbütünleşme testlerinden biri de Shin (1994) tarafından literatüre kazandırılan ve KPSS birim kök testine dayanan eşbütünleşme testidir. Tsong, vd. (2016), Shin eşbütünleşme testine trigonometrik terimleri eklemek suretiyle serideki ani ve yumuşak kırılmaları dikkate alan bir eşbütünleşme testi geliştirmişlerdir. Tsong, vd. (2016) eşbütünleşme denklemi ilk aşamada aşağıdaki şekilde ifade edilmektedir.

$$y_t = d_t + x_t'\beta + \eta_t \tag{8}$$

(8) numaralı denklemde, $\eta_t = \gamma_t + v_{1t}$, $\gamma_t = \gamma_{t-1} + u_t$, $\gamma_0 = 0$ $x_t = x_{t-1} + v_{2t}$ şeklindedir. u_t , $IID(0, \sigma_u^2)$ dağılıma sahiptir. γ_t , rassal yürüyüş sürecini göstermektedir. Deterministik bileşen d_t aşağıdaki şekilde gösterilmektedir.

$$d_t = \sum_{i=0}^m \delta_i t^i + f_t \tag{9}$$

Çizelge 1. Türkiye'de Vergi Gelirleri ve Kentleşme Oranları Table 1. Tax Revenues and Urbanization Rates in Türkiye

(7) fonksiyonu aşağıdaki şekilde ifade edilir.

$$f_t = \alpha_k \sin\left(\frac{2k\pi t}{T}\right) + \beta_k \cos\left(\frac{2k\pi t}{T}\right)$$
(10)

(9) numaralı denklemde m = 0 sabitli modeli, m = 1 ise

(10) numaralı denklemde, *t*, trendi, *k*, frekans değerini ve *T* gözlem sayısını göstermektedir. Test için hipotezler aşağıdaki şekilde gösterilir.

$$H_0: \sigma_u^2 = 0$$
$$H_1: \sigma_u^2 > 0$$

Değişkenler arasında eşbütünleşme ilişkisinin olduğu sıfır hipotezi ile iddia edilir. Fourier fonksiyonlarının yer aldığı denklem aşağıdaki şekilde gösterilir.

$$y_t = \sum_{i=0}^m \delta_i t^i + \alpha_k \sin\left(\frac{2k\pi t}{T}\right) + \beta_k \cos\left(\frac{2k\pi t}{T}\right) + x_t'\beta + v_{lt} \quad (11)$$

Eşbütünleşme test istatistiği aşağıdaki denklem ile elde edilmektedir.

$$CI_{f}^{m} = T^{-2}\hat{\omega}_{l}^{-2}\sum_{t=1}^{T}S_{t}^{2}$$
(12)

(12) numaralı denklemde $S_t = \sum_{t=1}^{T} \hat{v}_{1t}$, en küçük karelerden elde edilen kalıntıların kısmi toplamını ifade etmektedir. $\hat{\omega}_1^2$, v_{1t} 'nin uzun dönem varyansı için tutarlı tahmincisini temsil etmektedir.

Yıl	Vergi Gelirleri / GSYH (%)	Kent Nüfusu / Toplam Nüfus (%)
1980	14,34	43,78
1985	11,35	52,45
1990	11,56	59,20
1995	13,98	62,12
2000	17,70	64,74
2005	17,78	67,84
2010	18,51	70,83
2015	17,81	73,61
2021	16,29	76,57

Kaynak: Dünya Bankası (Worldbank) ve Türkiye İstatistik Kurumu (TUİK).

Çizelge 2. Literatür Özeti Table 2. Literature Review

Yazar(lar)	Dönem/ Ülke(ler)	Yöntem(ler)	Ampirik Bulgular
Tanzi ve	1980-1997	Panel Veri	Gelişmekte olan ülkelerde yolsuzluğun vergi gelirlerinin
Davoodi(2000)	/Seçili Ülkeler	Analizi	belirleyicisi olduğunu belirtmişlerdir.
Gupta (2007)	1980-2004 /Gelişmekte Olan Ülkeler	Panel Veri Analizi	Kişi başına düşen gelirin, ticari serbestleşmenin ve politik istikrarın vergi gelirleri üzerinde olumlu, tarım sektörünün payının, dış yardımların ve yolsuzluğun ise olumsuz etkileri olduğu bulgusuna ulaşmıştır.

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	3	,	
Chaudhry ve Munir(2010)	1973-2009 /Pakistan	Regresyon Analizi	Vergi gelirlerini, imalat sanayi, siyasi istikrar, enflasyon ve hizmet sektörünün olumlu; döviz kuru, okuryazarlık oranı ve kentleşmenin olumsuz etkilediğini belirtmişlerdir.
Timmons (2010)	1970-1999 /OECD Ülkeleri	Hata Düzeltme Modeli ECM	Demokratikleşmenin tüketime konulan vergileri arttıran bir etkiye sahip olduğunu ve vatandaşların vergi tercihlerinin vergi gelirleri bileşenlerinin üzerinde etkili olduğu bulgusuna ulaşmıştır.
Addison ve Levin(2012)	1980-2005 /Sahra Altı Afrika Ülkeleri	İki Aşamalı GMM Metodu	Ticari açıklık oranının, vergi gelirlerini olumlu; tarımsal katma değerin ise olumsuz etkilediğini belirlemişlerdir. Ayrıca kişi başına GSYH ve kentleşme ile vergi gelirleri arasında istatistiksel olarak anlamlı bir ilişki tespit edememişlerdir.
Dioda(2012)	1990-2019 /Latin Amerika Ülkeleri	Panel Veri Analizi	Kadınların işgücüne katılımı, eğitim düzeyi, Ticari açıklık, kişi başına GSYİH, nüfus yoğunluğu, sivil özgürlüklerin ve politik istikrarın vergi gelirlerini olumlu; Tarımın GSYİH içindeki payı ve kayıt dışılığın olumsuz etkilediği bulgusuna ulaşmıştır.
Karagöz(2013)	1970-2010 /Türkiye	Regresyon Analizi	Ekonominin parasallaşma oranının, dış borç stokunun, tarım sektörünün payının ve kentleşme oranının vergi gelirlerini olumsuz etkilediğini belirtmiştir. Ayrıca Türkiye'de dışa açıklık düzeyinin vergi gelirleri üzerinde önemli bir etkisinin olmadığını vurgulamıştır.
Hossain(2014)	2000-2012 /Seçili Ülkeler	Panel Veri Analizi	Kurumsal kapasitenin ve yolsuzlukların azalmasının vergi gelirleri üzerinde olumlu etkisi olduğunu belirtmiştir.
Zarra-Nezhad ve ark. (2016)	1990-2012 /Seçili Ülkeler	Panel Veri Analizi	GSYH ve demokratikleşmenin vergi gelirleriyle pozitif yönde, döviz kuru, tarımın GSYH içindeki payı ve kentleşmenin negatif yönde ilişkili olduğu bulgusuna ulaşmışlardır.
Nnyanzi ve ark. (2016)	1980-2014 /Doğu Afrika Topluluğu Ülkeleri	GMM Metodu	Vergi gelirleri ile kentsel nüfus, yolsuzluk kontrolü, tarım ve imalat sektörünün GSYİH içindeki payları, kamu borçları, kişi başına düşen GSYİH ve istihdam arasında pozitif, siyasi istikrarsızlık, enflasyon, kayıt dışı ekonomi, hukuksuzluk ve yardımlar arasında ise negatif bir ilişki olduğunu göstermişlerdir.
Asghar ve Mehmood (2017)	1980-2015 /Pakistan	ARDL Sınır Testi	Ekonomik büyüme ve kentleşme düzeyinin vergi gelirleri üzerinde olumlu bir etkisi olduğunu, dışa açıklık ve dış yardımların ise olumsuz bir etkisi olduğunu belirtmişlerdir.
Zeren ve Kılınç Savrul(2017)	1991-2014 /Türkiye	Saklı Eşbütünleşme Yöntemi	Kadın istihdam oranı ile ekonomik büyüme, işsizlik oranı ve kentleşme arasında uzun dönemli bir ilişki olduğunu göstermişlerdir.
Epaphra ve Massawe (2017)	1996-2016 /Afrika Ülkeleri	Panel Veri Analizi	Yolsuzluğun vergi gelirleri üzerinde olumsuz etkisi bulunduğu bulgusuna ulaşmışlardır.
Terefe ve Teera (2018)	1992- 2015/Sahra Altı Afrika ve Doğu Afrika Ülkeleri	Panel Veri Analizi	Vergi gelirlerini, uzun dönemde, kişi başına GSYİH, Dış yardımlar, ticari açıklık, tarım, sanayi ve hizmet sektörlerinin payının olumlu; Kentleşme, döviz kuru ve enflasyonun ise olumsuz etkilediğini belirtmişlerdir.
Bayraktutan ve Alancıoğlu (2019)	1990-2017 /BRICS Ülkeleri ve Türkiye	Panel Veri Analizi	Kentleşmeden büyümeye doğru tek yönlü bir nedensellik ilişkisi tespit etmişlerdir.
Çalçalı ve Altıner (2019)	1991-2015 /OECD ülkeleri	Panel Veri Analizi	Ekonomik büyüme ve İşsizliğin vergi gelirleri üzerinde anlamlı bir etkisinin olmadığını vurgulamışlardır. Ayrıca vergi gelirleri üzerinde enflasyonun negatif, ekonomik küreselleşmenin ise pozitif bir etkiye sahip olduğunu belirtmişlerdir.
Kutbay(2019)	1995-2017 /G7, BRIC ve Türkiye	Panel Veri Analizi	Doğrudan yabancı yatırımlar, küreselleşme ve enflasyonun, vergi gelirlerini negatif etkilediğini belirtmiştir. Ticari dışa açıklığın, hizmetler sektörünün milli gelir
Sağdıç(2019)	2004-2011 / Türkiye'de 26	Panel Veri Analizi	içerisindeki payı, kişi başına milli gelir düzeyi ve sanayi sektörünün milli gelir içerisindeki payı, vergi gelirlerini

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	Kalkınma Bölgesi		pozitif; tarımsal sektörünün ise negatif yönde etkilediğini göstermiştir. Ayrıca tarım sektörünün bölgesel açıdan verimli olarak vergilendirilmediğini vurgulamıştır.
Özhan ve Keyifli(2020)	2005-2018 /G20 Ülkeleri	GMM Metodu	Kentleşme oranı ve demokratikleşme düzeyinin vergi gelirleri üzerinde pozitif ve istatistiksel olarak anlamlı etkileri olduğunu göstermişlerdir.
Keyifli(2021)	2000-2018 /Yeni Sanayileşen Ülkeler (NIC)	Panel Nedensellik Analizi	Çin için gelir eşitsizliğinden kentleşmeye doğru nedensellik ilişkisi, Malezya, Filipinler, Brezilya ve Endonezya için kentleşmeden gelir eşitsizliğine doğru nedensellik ilişkisi, Türkiye ve Meksika için ise çift yönlü nedensellik ilişkisi olduğunu bulmuştur.
Kaya ve Barut (2021)	1965-2018 / Türkiye	Bayer ve Hanck Eşbütünleşme Testi	Vergi gelirlerini, ekonomik büyüme, doğrudan yatırımlar, finansal gelişme ve sanayi üretiminin pozitif; cari işlemler dengesinin ise negatif etkilediği belirtmişlerdir. Vergi gelirleri ile ticari açıklık arasında istatistiksel olarak anlamlı bir ilişki olmadığını tespit etmişlerdir.

Çizelge 3. Değişkenlere ait Tanımlayıcı İstatistikler Table 3. Descriptive Statistics of Variables

	VERGİ	KENT
Ortalama (%)	15,517	60,475
Medyan (%)	16,092	62,916
En büyük Değer (%)	19,050	76,569
En küçük Değer (%)	10,801	39,600
Standat Sapma	2,399	11,666
Normallik (Jarque-Bera)	3,915	4,175
Olasılık Değeri	0,141	0,124
Gözlem Sayısı	50	50

Ampirik Bulgular

VERGİ ve KENT değişkenleri arasındaki ilişkiyi inceleyen bu çalışmada, ekonometrik yöntemlerden elde edilen ampirik bulgular aşağıda tablolar halinde gösterilmiştir.

Çizelge 4'te VERGİ ve KENT değişkenlerinin durağanlık sınamasına ait sonuçlar verilmiştir. Hem KPSS hem de Becker ve ark. (2006) Fourier KPSS birim kök testi sonuçlarına göre her iki değişken düzey değerlerinde birim köklü çıkmıştır. Birinci farkı alındıktan sonra durağanlaşmıştır. Ayrıca trigonometrik terimler için yapılan F testi istatistiksel olarak anlamlı çıkmıştır. Trigonometrik terimlerin modelde yer alması, testin gücünü arttırmaktadır.

Çizelge 5'te değişkenler arasındaki eşbütünleşme ilişkisine ait sonuçlar verilmiştir. Elde edilen sonuçlara

göre VERGİ ve KENT değişkenleri arasında uzun dönemli bir ilişki tespit edilmiştir. Ayrıca trigonometrik terimler için yapılan F testi istatistiksel olarak anlamlı çıkmıştır. Trigonometrik terimlerin yer alması modelin gücünü arttıracaktır. Değişkenler arasındaki uzun dönem katsayısı, dinamik en küçük kareler (DOLS) yöntemi ile araştırılmıştır. Elde edilen sonuçlar Çizelge 6'da gösterilmiştir.

Çizelge 6'da Stock-Watson (1993) tarafından literatüre kazandırılan dinamik en küçük kareler yönteminden elde edilen sonuçlar, kentleşmenin vergi gelirlerini pozitif yönde etkilediğini göstermektedir. Ayrıca katsayı istatistiksel olarak anlamlı çıkmıştır. Kent nüfusunun toplam nüfus içindeki payında meydana gelen %1'lik bir artış, vergi gelirlerinin GSYH içindeki payını yaklaşık %0,08 oranında arttırmaktadır.

Çizelge 4. Birim Kök Testi Sonuçları Table 4. Unit Root Test Results

		KPSS			
Değişkenler	Test İstatistiği		l	Kritik Değerler	
VERGİ	0,440 ⁽¹⁰⁾		% 1		0,739
ΔVERGÍ KENT	0,074 0,909 ⁽¹⁾		% 5		0,463
ΔΚΕΝΤ	0,296		% 10		0,347
	F	ourier KPSS			
Değişkenler	Frekans		Test İstatistiğ	i	F İstatistiği
VERGİ	1		0,110		25,377***
∆VERGİ	3		0,043 ⁽¹⁾		
KENT	1		0,203		103,838***
ΔKENT	2		0,022 ⁽¹⁾		
	Frekans = 1 için kritik değerler	%1: 0,072	%5: 0,055	%10: 0,047	
	Frekans = 2 için kritik değerler	%1: 0,202	%5: 0,132	%10: 0,103	
	Frekans = 3 için kritik değerler	%1: 0,210	%5: 0,142	%10: 0,114	
	F istatistiği için kritik değerler	%1: 6,315	%5: 4,669	%10: 3,928	
	Kritik değerler (Becker ve ar ⁽¹⁾ ve ⁽¹⁰⁾ sırasıyla % 1 ve % 1				

Çizelge 5. Eşbütünleşme Testi Sonuçları Table 5. Cointegration Test Results

MODEL	Frekans	Test ist	atistiği	F İstatistiği
$VERG\dot{I} = f(KENT)$	1	0,01	-4 ⁽¹⁾	10,116 ⁽¹⁾
Frekans = 1 için kritik değe	rler %1: 0,063	%5: 0,048	%10: 0,042	
F istatistiği için kritik değer	rler %1: 5,860	%5: 4,019	%10: 3,306	
Kritik değerler (Tsong ve	ark. 2016, 1091) çalışmasında	n alınmıştır.	
⁽¹⁾ , % 1 anlan	nlılık düzeyini gö	stermektedir.		

Çizelge 6. Uzun Dönem Katsayılarına ait Sonuçla	ar
Table C. Decults for Long Dun Coofficients	

Tuble 6. I	Results Jur Long	Run Coefficients			
De	gişken	Katsayılar	Standart Hata	t - İstatistiği	Olasılık Değeri
1	KENT	0,082036	0,033341	2,460485	0,0181
Sab	it Terim	13,24643	2,433970	5,442313	0,0000
	CC	0,098149	0,376284	0,260838	0,7956
	SS	0,084097	0,583784	0,144055	0,8862

Not: CC ve SS sırasıyla kosinüs ve sinüs fonksiyonlarını belirtmektedir.

Sonuç

Kentleşme, ekonomik, sosyal ve kültürel değişimlerin meydana geldiği önemli bir süreçtir. Bu süreç, bir ülkenin kalkınmasında önemli bir rol oynar. Kentler, ekonomik büyüme, yatırım fırsatları, iş yaratma, sosyal ve kültürel aktiviteler, daha iyi eğitim ve sağlık hizmetleri gibi pek çok fırsat sunarlar. Kentlerdeki nüfus artışı, ekonomik faaliyetlerin artması, işletmelerin kurulması, tüketim ve yatırımın artması gibi birçok olumlu etkileri beraberinde getirir. Bu olumlu etkiler aynı zamanda vergi gelirleri açısından da önemlidir. Vergi gelirleri, bir ülkenin kalkınması ve hizmetlerin finansmanı için kritik bir kaynaktır. Kentleşme ile birlikte, nüfus artışı ve ekonomik faaliyetlerin artması vergi gelirlerini doğrudan etkiler. Başka bir ifadeyle kentleşme, ekonomik, sosyal ve kültürel gelişim için bir fırsat sunarken, vergi gelirleri de bu gelişim için finansman kaynağı sağlar. Bu olgudan yola çıkarak çalışmada 1972-2021 dönemi için Türkiye'de vergi gelirleri ile kentleşme arasındaki ilişki incelenmiştir. Değişkenler arasında ilişkinin tespit edilmesi için Tsong ve ark. (2016) Fourier eşbütünleşme testi uygulanmıştır. Değişkenler arasındaki eşbütünleşme testine ait bulgular kentleşme ile vergi gelirleri arasında uzun dönemli bir ilişki olduğunu göstermektedir. Kent nüfusunun toplam nüfus içindeki payında meydana gelen %1'lik bir artışın, vergi gelirlerinin GSYH içindeki payını yaklaşık %0,08 oranında arttırdığı bulgusuna ulaşılmıştır. Elde edilen sonuçlar, kentleşmenin vergi gelirleri üzerinde olumlu bir etkiye sahip olduğu görüşünü desteklemektedir. Çalışmanın ampirik bulguları, Asghar ve Mehmood (2017), Zeren ve Kılınç Savrul (2017), Özhan ve Keyifli (2020) çalışmalarıyla uyumluluk göstermektedir. Literatürde vergi gelirleri ile kentleşme arasındaki spesifik ilişkiyi inceleyen çalışma sayısının oldukça sınırlı olması ve fourier yaklaşımını dikkate alan ekonometrik tekniklerin kullanılması nedeniyle ilgili alanlara katkı sağlayacağı düşünülmektedir.

Kentleşme eğiliminin vergi gelirleri üzerindeki olumlu etkilerini en üst seviyeye çıkarabilmek için; kentsel ve kırsal alanda var olan aktörler arasında ilişkinin arttırılması, sektörler arasında entegrasyonun sağlanması, yerel kaynakları harekete geçiren makro ekonomik politikaların uygulanması önem arz etmektedir. Bu politikalar kır ve kent nüfusu arasında dengenin sağlanması açısından da ayrı bir öneme sahiptir. Türkiye'de büyüme ve kalkınmanın sağlanmasında bölgelerarası ve kırsal-kentsel alanlardaki dengesizlikleri gideren politikaların hayata geçirilmesi ve sürdürülebilirliğinin sağlanması, vergi gelirlerini arttırıcı bir etkiye yol açacaktır.

Extended Abstract

The process of urbanization has gained great momentum in the last century worldwide. In particular, there has been an increase in migration from rural areas to cities in developing countries, resulting in a rapid increase in urban populations. The sociological and cultural structure that arises with the increase in urban population has a significant impact not only on various areas but also on tax revenues, which is one of the fiscal policy tools.

States require resources to provide the goods and services that society needs. Taxes are the most vital source of revenue for the public sector in financing these expenditures. Taxes, defined as the economic values taken from individuals and legal entities for the purpose of meeting public expenditures, have an significant role in ensuring the growth and development of countries. There are many different factors that determine tax revenues, including economic, institutional, social, and cultural factors. Public debt, economic growth, per capita GDP, corruption, employment, unemployment, population growth rate, tax policies, poverty, openness to foreign trade, and general price level increases are among the factors that affect tax revenues. However, in Türkiye, the increasing trend of rural-urban migration has resulted in urbanization having a separate importance among the actors affecting tax revenues.

Urbanization is an important process in which economic, social, and cultural changes take place. This process plays a significant role in a country's development. Cities offer many opportunities, such as economic growth, investment opportunities, job creation, social and cultural activities, better education and health services, and more. Population growth in cities brings many positive effects, such as increased economic activities, business establishment, consumption, and investment. These positive effects are also significant in terms of tax revenues. Tax revenues are an important source for a country's development and financing services. Along with urbanization, population growth, and increased economic activities directly affect tax revenues. In other words, while urbanization offers opportunities for economic, social, and cultural development, tax revenues also provide a source of financing for this development.

The literature is replete with studies that look at the connection between tax revenues and the variables that influence them. Although urbanization is one of the elements that determine tax revenues, there aren't many research that looks at the connection between urbanization and tax revenues. The relationship between urbanization and tax revenues is based on two main reasons: high population and higher economic activities. The increase in population in cities leads to an increase in the number of businesses, residences, and other activities. This results in more business taxes, property taxes, and other types of taxes being paid. In addition, economic activities in cities also increase with urbanization. These activities result in more employment, more production, and more consumption. As a result, tax revenues in cities also increase (Duranton and Puga, 2015, p.468).

Mahdavi (2008) has stated that the increasing population density in cities, unlike rural areas, has a positive effect on wealth taxes. The increase in urban population leads to an increase in public goods and services. Additionally, the increase in urbanization creates new areas that can be subject to taxation, leading to an increase in tax revenues (Tanzi, 1987, p.206; Tanzi and Zee, 2000, p.5). The increase in demand for public goods and services per capita due to the increase in urbanization highlights the necessity of increasing tax revenues to meet the increasing demand for goods and services (Tanzi, 1987, p.206). In fact, all elements within the economic structure have an impact on tax revenues (Sağdıç, 2019, p.159). It is known that in addition to being affected by many internal and external factors, positive developments in some macroeconomic factors in the economy can create significant improvements in the performance of taxes (Kutbay, 2019, p.605). Urbanization increases the demand for products and services, which necessitates raising tax revenues to pay for expenditures. Therefore, it is expected that there is a positive relationship between urbanization and tax revenues (Terefe and Teera, 2018, p.136).

When the urbanization movement in Türkiye is examined, it can be seen that there are two periods with different characteristics: before and after 1950. In the period before 1950, it was observed that the rural population was more dense. However, after 1950, due to the structural transformations in rural areas, rural-tourban migration accelerated and urban populations began to increase. When the distribution of Türkiye's population according to rural and urban settlements is examined, it is seen that approximately 75% of the population lived in rural areas between 1927 and 1950. As a result of migration from rural to urban areas, this rate dropped to 35% in the 2000s. The main aim of the study is to determine how the increasing urban population in Türkiye has affected tax revenues. The study aims to contribute to the literature by providing ideas to policymakers and practitioners in the economic and financial fields who aim to increase tax revenues, due to the lack of studies specifically examining the relationship between urbanization and tax revenues. Therefore, the effect of urbanization, which is an important determinant among the determinants of tax revenues, on tax revenues was

examined for the period of 1972-2021 in the study. The relationship between variables was investigated by the Fourier cointegration test of Tsong et al. (2016). The test takes into account sudden and smooth breaks in the series by adding trigonometric terms to the cointegration test based on the KPSS unit root test of Shin (1994). The findings of the cointegration test between variables show that there is a long-term relationship between urbanization and tax revenues. It was found that a 1% increase in the urban population's share of the total population increased the share of tax revenues in GDP by approximately 0,08%. The results support the view that urbanization has a positive effect on tax revenues. Therefore, in order to maximize the positive effects of the urbanization trend on tax revenues, increasing the relationship between actors in urban and rural areas, ensuring integration between sectors, and implementing macroeconomic policies that activate local resources are important. These policies are also important in terms of achieving a balance between rural and urban populations. Implementing policies that eliminate regional and ruralurban imbalances in Türkiye, where growth and development are provided, and ensuring their sustainability will have an increasing effect on tax revenues. Therefore, in order to maximize the positive effects of the urbanization trend on tax revenues, increasing the relationship between actors in urban and rural areas, ensuring integration between sectors, and implementing macroeconomic policies that activate local resources are necessary.

Kaynakça

- Addison, T., ve Levin, J. (2012). The Determinants of tax revenue in Sub-Saharan Africa. *Journal of International Development*, 1-19.
- Asghar, F., ve Mehmood, B. (2017). Effects of trade liberalization on tax revenue in Pakistan: an empirical scrutiny using ARDL Bound Testing. *Pakistan Economic and Social Review*, 55 (1), 159-184.
- Aydınbaş, G., ve Erdinç, Z. (2022). Vergi gelirlerini etkileyen unsurların tespit edilmesi. *Anemon Muş Alparslan Üniversitesi Sosyal Bilimler Dergisi*, 10(2) 799-817.
- Bahl, R., ve Wallace, S. (2005). Public financing in developing and transition countries. *Public Budgeting & Finance*, 25(4), 83-98.
- Bakkal, U. (2007). Kayıt dışı Ekonomi. İstanbul: Derin Yayınları.
- Bayhan, M. (2022). Kentleşme sürecinde sosyo-ekonomik faktörler ile kentlilik bilinci arasındaki ilişki: Diyarbakır örneği. Sosyal Bilimler Akademi Dergisi. 5(1), 39-69.
- Bayraktutan, Y., ve Alancıoğlu, E. (2019). Kentleşme-büyüme ilişkisi: BRICS-T için bir analiz. *Elektronik Sosyal Bilimler Dergisi*, 18(72), 1841-1848.
- Becker, R., Enders, W., ve Lee, J. (2006). A Stationary test in the presence of an unknown number of smooth breaks. *Journal of Time Series Analysis*, 3(5), 381-409.
- Chaudhry, I. S., ve Munir, F. (2010). Determinants of law tax revenue in Pakistan. *Pakistan Journal of Social Sciences*, 30(2), 439-452.
- Çalcalı, Ö., ve Altıner, A. (2019). Makro ekonomik açıdan vergi gelirlerinin belirleyicileri: OECD ülkeleri üzerine bir uygulama. *Maliye ve Finans Yazıları, (112), 175 198.*

- Dickey D.A., ve Fuller W.A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica*, 49(4), 1057 1072.
- Dioda, L. (2012). Structural determinants of tax revenue in Latin America and The Caribbean, 1990- 2009. Economic Commission for Latin America and the Caribbean (ECLAC). LC/MEX/L.1087, Press in United Nations.
- Duranton, G., ve Puga, D. (2015). Urban land use. *Handbook of Regional and Urban Economics*, 5, 467-560.
- Dünya Bankası (Worldbank). https://www.worldbank.org/tr/ country/turkey
- Epaphra, M., ve Massawe, J. (2017). Corruption, governance and tax revenues in Africa. *BEH-Business and Economic Horizons*, 13 (4), 439-467.
- Gupta, A. S. (2007). Determinants of tax revenue efforts in devoloping countries. *IMF Working Paper*, WP/07/184.
- Hossain, M. I. (2014). The Quality of governance and tax effort: evidence from developed and developing countries. Graduate School of Public Policy The University, Tokyo.
- Immervoll, H. (2000). The Impact of inflation on income tax and social insurance contributions in Europe. https://www.researchgate.net/publication/5017497_The_I mpact_Of_Inflation_On_Income_Tax_And_Social_Insuranc e Contributions In Europe
- Işık, Ş. (2005). Türkiye'de kentleşme ve kentleşme modelleri. *Ege Coğrafya Dergisi, 14, 57-71.*
- Karagöz, K. (2013). Determinants of tax revenue: does sectorial composition matter?. Journal of Finance Accounting and Management, 4(2), 50-63.
- Kaya, E., ve Barut, A. (2021). Finansal ve ekonomik faktörlerin vergi gelirleri üzerine etkisi: Türkiye örneği. Mali Çözüm Dergisi, 31(164), 143-157.
- Keleş, R. (1997). Kentleşme Politikası. Ankara: İmge Kitabevi Yayınları.
- Keyifli, N. (2021). Kentleşme ile gelir eşitsizliği arasındaki ilişki: Bootstrap panel Granger nedensellik analizi. Uluslararası İktisadi ve İdari Araştırmalar Dergisi (IJEAS), 30, 211-228.
- Kutbay, H. (2019). Vergi gelirlerini etkileyen faktörler: seçilmiş ülkeler için panel veri analizi. Mehmet Akif Ersoy Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 6 (3), 602-617.
- Kwiatkowski, D., Phillips, P. C. B., Schmidt, P., ve Shin, Y. (1992) Testing the null hypothesis of stationary against the alternative of a unit root. *Journal of Econometrics*, 54, 159-178.
- Mahdavi, S. (2008). The level and composition of tax revenue in developing countries: evidence from unbalanced panel data. *International Review of Economics and Finance*, 17, 607-617.
- Nadaroğlu, H. (1996). Kamu Maliyesi Teorisi, İstanbul: Beta Yayınevi.
- Nnyanzi J. B., Babyenda, P., ve Bbale J. M. (2016). Regional economic integration and tax revenue: East African Community. *Journal of Economic Integration*, 31(4), 932-967.
- Özhan, M., ve Keyifli, N. (2020). Vergi gelirleri, kentleşme ve demokrasi: G20 ülkeleri üzerine ekonometrik bir çalışma. *Ekev Akademi Dergisi*, 24 (84), 391-408.
- Öztürk, Ö.F., Şaşmaz, M.Ü., Bayar, Y., ve Odabaş, H. (2019). Türkiye'de başlıca ekonomik değişkenlerin vergi gelirleri üzerindeki etkisi: çoklu doğrusal regresyon analizi. *Sayıştay Dergisi*, 115, 37-53.
- Phillips, P. C. B., ve Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika*, 75(2), 335 346.
- Sağdıç, E. N. (2019). Vergi gelirlerini belirleyen faktörlerin bölgesel analizi: Türkiye örneği. Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, 60, 155-178.

- Sağlam, M., ve Erginbay, U. (2013). Kamu açıkları, parasal büyüme ve enflasyon ilişkisi: Türkiye örneği (1983-2008). *Finans Politik & Ekonomik Yorumlar*, 50 (576), 71-84.
- Shin, Y. (1994). A residual based test of the null of cointegration against the alternative of no cointegration. *Econometric Theory*, 10(1), 91-115.
- Stock, J. H., ve Watson, M. W. (1993). A simple estimator of cointegrating vectors in higher order integrated systems. *Econometrica*, 61(4), 783-820.
- Tanzi, V. (1980). Inflation and personel income tax: an international perspective, Cambridge University Press, London.
- Tanzi, V. (1987). Quantitative Characteristics of the Tax Systems of Developing Countries. David Newbery and Nicholas Stern (Ed.), The Theory of Taxation for Developing Countries, Oxford University Press, New York, 205- 241.
- Tanzi, V., ve Davoodi, H. (2000). Corruption, growth and public finance. *IMF Working Paper*, WP/00/182.
- Tanzi, V., ve Zee, H. (2000). Tax policy for emerging markets: developing country. *IMF Working Paper*, WP/00/35, 1-35.
- Terefe, K. T., ve Teera, J. (2018). Determinants of tax revenue in East African countries: an application of multivariate panel data cointegration analysis. *Journal of Economics and International Finance*, 10(11), 134-155.
- Timmons, J. F. (2010). Taxation and credible commitment: left, right, and partisan turnover. *Comparative Politics*, 42(2), 207–227.

- Torgler, B. (2004). Tax morale, trust and corruption: Empirical evidence from transition countries (CREMA Working Paper No. 2004-05). Center for Research in Economics, Management and the Arts, Basel.
- Tsong, C. C., Lee, C. F., Tsai, L. J., ve Hu, T. C. (2016). The fourier approximation and testing for the null of cointegration. *Empirical Economics*, 51(3), 1085-1113.
- Türk, İ. (2010). Maliye Politikası (Amaçlar, Araçlar ve Çağdaş Bütçe Teorileri), Ankara: Turhan Kitapevi.
- Türkiye İstatistik Kurumu (TUİK). https://www.tuik.gov.tr/
- UN-Habitat. (2013). State of the world's cities 2012/2013. United Nations Human Settlements Programme.
- Yalçın, C. (2004). Göç Sosyolojisi, Ankara: Anı Yayıncılık.
- Yılmaz, E., ve Çiftçi, S. (2011). Kentlerin ortaya çıkışı ve sosyopolitik açıdan Türkiye'de kentleşme dönemleri. *Elektronik Sosyal Bilimler Dergisi*, 10(35), 252-267.
- Zarra-Nezhad, M., Ansari, M. S., ve Moradi, M. (2016). Determinants of tax revenue: does liberalization boost or decline it?. *Journal of Economic Cooperation and Development*, 37(2) 103-126.
- Zeren, F., ve Kılınç Savrul, B. (2017). Kadınların işgücüne katılım oranı, ekonomik büyüme, işsizlik oranı ve kentleşme oranı arasındaki saklı koentegrasyon ilişkisinin araştırılması. *Yönetim Bilimleri Dergisi*,15(30), 87-103.



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Determinants of Banks' Net Interest Margins in Türkiye and Theoretical and Empirical Investigation of Its Effects on the Financial Structure of Commercial Banks

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ÖZ

Research Article	ABSTRACT
	Banks are the most important financial institutions operating in order to provide financing by transferring the
History	fund accumulation to the institutions and individuals in need of resources, and to develop the economic
	structure, domestic and foreign trade, and the financial system. It is important for banks to be financially sound
Received: 10/05/2023	and efficient in order to maintain economic development and financial stability. For this reason, the "Net Interest
Accepted: 28/07/2023	Margin" (NIM) of banks is used as an analysis tool by both bank management and banking researchers since it is
	considered an important indicator in the sector in evaluating financial soundness, profitability performance, loan
	pricing, and measuring the efficiency of bank activities.
	In this study, the determinants of "NIM" and its impact on the financial structure of commercial banks are
	analyzed by panel data analysis method using quarterly data of 15 commercial banks operating in the Turkish
	banking system with the highest asset size and covering the period 2003Q1-2022Q2. In the model; credit risk,
	liquidity risk, capital structure, equity structure, market power, profitability, interest income, interest expense
	ratio, total assets, etc. are taken as independent endogenous variables; interest rates, exchange rates, inflation, and economic growth are taken as macroeconomic variables.
	As a result of the analysis, a significant and positive relationship was found between NIM and return on equity,
	loan ratio, capital adequacy, interest income ratio, non-interest income ratio, TL deposit rates and exchange
	rates. On the other hand, total assets, credit risk, financial asset ratio, TL loan rate, inflation, and economic
	growth variables have a statistically significant and negative effect on NIM. In addition, market power, deposit
	ratio, liquidity risk, and equity structure variables have no statistically significant effect on NIM.

Keywords: Banking Sector, Commercial Banks, Net Interest Margin, Panel Data Analysis.

Türkiye'de Bankaların Net Faiz Marjlarının Belirleyicileri ve Ticari Bankaların Finansal Yapısına Etkisinin Teorik ve Ampirik Olarak İncelenmesi

Süreç Geliş: 10/05/2023 Kabul: 28/07/2023 Copyright Copyright Disease under Creative Commons Attribution 4.0 International License	Bankalar, fon birikiminin kaynak ihtiyacı olan kurum ve kişilere aktarılması yoluyla finansman sağlanması, ekonomik yapının, iç ve dış ticaretin ve finansal sistemin gelişmesi amacıyla faaliyet gösteren en önemli finansal kurumlardır. Bankaların finansal yönden sağlam olması, etkin ve verimli çalışması, ekonomik gelişme ve finansal istikrarın sürdürülmesi açısından önemlidir. Bankaların "Net Faiz Marjı" (NFM) ise, sektörde, finansal sağlamlığın, kârlılık performansının değerlendirilmesinde, kredi fiyatlamasında, banka faaliyetlerinin verimliliğinin ölçülmesinde, finansal aracılık maliyetinin anlaşılmasında önemli bir gösterge olarak kabul edilmektedir. Bu nedenle; gerek banka yönetimleri ve gerekse bankacılık otoriteleri ile araştırmacıları tarafından bir analiz aracı olarak da kullanılmaktadır. Bu çalışmada; Türk bankacılık sisteminde faaliyet gösteren ve aktif büyüklüğü en yüksek 15 ticari bankanın üçer aylık dönemler halinde sağlanan ve 2003Q1-2022Q2 yıllarını kapsayan verileri kullanılarak panel veri analizi yöntemiyle "NFM"nın belirleyicileri ve ticari bankaların finansal yapısına etkisi incelenmiştir. Oluşturulan modelde; kredi riski, likidite riski, sermaye yapısı, özkaynak yapısı, piyasa gücü, kârlılığı, faiz gelirleri, faiz giderleri oranı, toplam varlıklar vb bağımsız içsel değişkenler; faiz oranları, döviz kurları, enflasyon, ekonomik büyüme makro ekonomik değişkenler olarak alınmıştır. Yapılan analiz sonucunda; NFM ile özkaynak kârlılığı, kredi oranı, sermaye yeterliliği, faiz gelirleri oranı, faiz dışı gelirler oranı, TL mevduat faizleri ve döviz kurları arasında anlamlılık düzeyinde ve pozitif yönlü bir ilişki belirlenmiştir. Toplam varlıklar, kredi riski, finansal varlık oranı, TL kredi faizi, enflasyon ve ekonomik büyüme değişkenlerinin NFM'nı istatistiksel olarak anlamlılık düzeyinde ve negatif yönlü etkilemekte olduğu tespit edilmiştir. Diğer yandan, piyasa gücü, mevduat oranı, likidite riski ve özkaynak yapısı değişkenlerinin NFM üzerindeki etkisinin istatistiksel olarak anlamlılık keviyesind
	Anahtar Kelimeler: Bankacılık Sektörü, Ticari Bankalar, Net Faiz Marjı, Panel Veri Analizi.
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	cerminants of Banks' Net Interest Margins in Türkiye and Theoretical and Empirical Investigation of Its Effects on the of Commercial Banks, Journal of Economics and Administrative Sciences, 24(4), 606-624. DOI: 1295369

Giriş

Türk bankacılık sektörü, dünyadaki neoliberal ekonomik politikaların ve finansal küreselleşmenin de etkisiyle 1980 itibaren liberalleşme, serbestleşme vilindan ve uluslararasılaşma sürecinde hızlı bir gelişim göstermiştir. Ancak, bu süreçte özellikle 1990'lardan sonra Türk ekonomisinin dışa açılmasını destekleyen politika değişiklikleri, Türk Parasının Kıymetini Koruma Hakkındaki 32 sayılı karar ile dış ticaret ve kambiyo rejiminin serbestleşmesi, döviz alım satımının, yabancı para üzerinden portföy oluşturulmasının, faiz oranlarının ve döviz kurlarının piyasa koşullarına göre belirlenmesi ilkesinin benimsenmesi ve sermaye akımlarının serbest bırakılması sonrasında ortaya çıkan yüksek enflasyon, yüksek işsizlik, istikrarsız büyüme, sürdürülemez iç ve dış borçlanma gibi sorunlar ile karsılasılmış, bunun sonucunda 1991, 1994 ve 1998 ekonomik krizleri yaşanmıştır. Bu dönemde, ekonomik koşulların iyileştirilmesi, işsizlik ve enflasyonun düşürülmesi, büyümenin desteklenmesi, kamu finansmanının disipline edilmesi, bütçe açığının azaltılması ve finansal istikrarın sağlanması amacıyla Uluslararası Para Fonu (IMF) ile birçok defa anlaşma yapılarak istikrar programları uygulanmıştır. Uygulamaya konulan politikalardan beklenen başarının sağlanamaması, ekonomik, finansal ve yapısal sorunların devam etmesi sonucunda 2000 Kasım ve 2001 Subat aylarında cumhuriyet tarihinin en büyük finansal krizi meydana gelmis, ardından yeni bir ekonomik program uygulamaya konulmuş, yanı sıra mali yapısı bozulan bankacılık sektörünün yeniden yapılandırılması amacıyla da bir yeniden yapılandırma programı başlatılmıştır.

Yeniden yapılanma dönemi ve sonrasında gerek Türkiye ekonomisi ve gerekse Türk bankacılık sektöründe önemli iyileşmeler gerçekleşmiş, bankaların sağlıklı bir finansal yapıya kavuşturulması, etkin risk yönetimi politikalarının uygulanması, iç kontrol sistemlerinin kurulması, gözetim ve denetim süreçlerinin iyileştirilmesi amacıyla yeni bir finansal yapı ve düzen kurulmuştur. Türk bankacılığı olumlu ekonomik ve finansal yapının da etkisiyle hızla büyümüş, dışa açılmış ve rekabet gücünü önemli ölçüde geliştirmiştir. Türk bankacılık sektöründe gerçekleştirilen yapısal reformlar finansal istikrar ve derinleşmeyi desteklemiş, bankaların sermaye yapıları güçlendirilmiş, istikrarlı net faiz marjı oranları yıllar içinde bankaların kârlılık, verimlilik ve etkinliğine katkıda bulunmuştur.

Bankaların, ekonomide kaynak dağılımında etkinliğin sağlanmasına yönelik finansal aracılık rolü, mevduat veya kredi yoluyla toplanan kaynakların devlete, firmalara veya bireylere kredi şeklinde borç verme faaliyetinden ibarettir. Bankaların kredi ve diğer alacakları vani kullandırdığı kaynak karşılığında elde ettiği gelirlere faiz geliri, mevduat veya yurtici ve yurtdısı finansal piyasalardan kredi seklinde sağladığı kaynaklar için ödediği fiyat ise faiz giderini oluşturmaktadır. Ayrıca, bankalar bono, tahvil vb gibi menkul kıymetler portföyünden faiz geliri elde etmekte, ihraç ettiği menkul kıymetler için de faiz ödemektedir. Bu bağlamda; faiz marjı, gelir getiren varlıklardan sağlanan faiz gelirleri ile özvarlıklar dısındaki kaynaklara ödenen faiz giderleri arasındaki farktan oluşmaktadır. Net faiz marjı ise, yukarıda belirtilen faiz gelirleri ile faiz giderlerinin gelir getiren varlıkların toplamina bölünmesi voluvla hesaplanmaktadır (Selçuk ve Tunay 2014).

Net Faiz Marjı

Toplam Faiz Gelirleri — Toplam Faiz Giderleri

Toplam Varlıklar

Net faiz marjı; bazen "net faiz farkı" (net interest spread) kavramı ile karıştırılabilmektedir. Net faiz farkı, borçlanma ve borç verme oranları arasındaki nominal farklılık olup, gelir getiren varlıklar ile ödünç alınan fonların türü, bileşimi ve tutarı hakkında bir bilgi vermediğinden "net faiz farkı" yerine "net faiz marjı" bankalar için önemli bir performans göstergesi olarak tanımlanmakta ve izlenmektedir (Selçuk ve Tunay 2014).

Bankalarda net faiz marjının piyasa denge faiz oranından ayrı olarak belirlenmesi mümkün değildir. Aşağıdaki grafikte görüldüğü üzere, Türkiye'de faiz oranları merkez bankasının para arzı eğrisi ile para talebinin eşitlendiği seviyede (Grafik 1/a), piyasa faiz oranları ise ödünç verilebilir fon arzı ile ödünç verilebilir fon talebinin eşitlendiği noktada (Grafik 1/b) belirlenmektedir (Busch ve Memmel 2015).



Şekil 1. Denge Faiz Oranlarının Belirlenmesi ve Net Faiz Marjı Figure 1. Determination of Equilibrium Interest Rates and Net Interest Margin

Kaynak: Yazar tarafından üretilmiştir.

Ekonomide piyasa faiz oranları düştüğünde, kredi talebi artmakta, mevduat arzı azalmakta, bankaların fonlama maliyetleri faiz gelirlerine göre daha hızlı düşmekte, net faiz marjı artmaktadır. Ekonomide faiz oranları yükseldiğinde ise mevduat arzı artmakta, kredi talebi azalmakta, artan fonlama maliyetine bağlı olarak bankaların net faiz marjı azalmaktadır. Net faiz marjı, bankacılık sektöründe hem kârlılık performansının değerlendirilmesinde, hem de kredi fiyatlamasında referans olarak da kullanılmaktadır. Bu nedenle, banka yönetimleri ve bankacılık araştırmacıları tarafından "Net Faiz Marjı-NFM (Net Interest Margin)" önemli bir analiz aracı olarak kullanılmaktadır (Selçuk ve Tunay 2014). Net faiz marjı diğer bir kârlılık performans ölçütü olan aktif kârlılığı ile de ilişkili olmakla birlikte, aktif kârlılığı ile bankanın tüm varlıklardan elde ettiği gelir ve giderleri arasındaki fark analiz edilirken, net faiz marji esas faaliyetlerden elde edilen kârlılığı göstermektedir.

Bankacılık sisteminde en önemli gelir kaynağı faiz gelirleri olmakla birlikte, bankaların faiz gelirlerinin yanı sıra bankacılık hizmetlerinden sağlanan ücret, komisyon ve hizmet gelirleri de toplam gelirler içerisinde önemli bir paya sahiptir. Bankalar genellikle faiz dışı giderlerini faiz dışı gelirleri ile karşılamayı hedeflemekle birlikte, banka performansı ve etkinliğinin incelenmesinde net faiz marjı en önemli gösterge olup, yurtiçi ve yurtdışında yapılan birçok çalışma da banka net faiz marjlarının teorik olarak veya ampirik modellerle açıklanması üzerine odaklanmıştır.

Net Faiz Marjının yüksek olması, mikro acıdan banka kârlılığını ve buna bağlı olarak. özellikle de kârın kısmen veva tamamen sermayeye eklenmesi durumunda banka özkaynaklarını güçlendirirken, makro açıdan ekonomiye kaynak aktarımı sürecinde fon maliyetini artıracağından toplam yatırımları olumsuz etkileyebilir. Net faiz marjının yüksek olması, her zaman tercih edilen bir durum olmayabilir. Net faiz marjının yüksek olması, rekabetçi bir piyasa yapısının olmadığı, aksine kredi piyasalarında oligopolistik bir yapının olduğu veya mevduata negatif reel faiz ödendiği, risk primi ve asimetrik bilginin yüksek, yasal düzenlemelerin yetersiz olduğu bir durumu da gösterebilmektedir. Net faiz marjının istikrarlı ve düşük olması, para piyasalarının ve para politikasının etkin olduğunu, bankalar arasında yeterli rekabetin oluştuğunu, bankaların aşırı risk primi ile çalışmadığını, bankacılık sistemi ve finansal piyasaların daha istikrarlı bir yapıya sahip olduğunu yansıtacaktır (Raharjo vd 2014; Claeys ve Vennet 2007; Hellman, Murdock ve Stiglitz 2000). Net faiz marjlarının düşük olması finansman maliyetlerini düşüreceğinden ekonomik gelişme ve kalkınmayı da olumlu yönde etkileyebilecektir.

Bu çalışmada bankaların net faiz marjlarının belirleyicileri ve banka finansal yapısı üzerindeki etkisi, rolü ve önemi incelenmiş ve tartışılmıştır. Çalışmada, öncelikle Türk bankacılık sistemi hakkında genel olarak bilgi verilmiş, ardından bankalarda net faiz marjı kuramsal ve teorik olarak açıklanmıştır. Bu kapsamda, net faiz marjını açıklayan modeller, net faiz marjının belirleyicileri, net faiz marjının banka faiz oranı riskinin yönetimi ve banka mali yapısına etkisi analiz edilmiştir. Bankaların faiz marjlarının önemli belirleyicileri olarak; sermaye yeterliliği, kredi riski, kârlılık, bankanın büyüklüğü vb gibi bankalara özgü değişkenler ile enflasyon, reel büyüme, mevduat ve kredi faizleri ile ortalama döviz kurları gibi dıssal va da makroekonomik değiskenler kullanılmıstır. Calısmanın besinci bölümü veri seti, metodoloji ve model ile bulguların acıklanmasını icermektedir. Araştırmamızın son bölümünde ise sonuçlar, bulguların yorumlanması ile önemli çıkarımlara yer verilmektedir.

Türk Bankacılık Sektörünün Kurumsal Yapısı

Türk ekonomisinde etkin kaynak dağılımının sağlanması ve ekonominin gelişmesinde finans sektörünün önemli bir payı bulunmaktadır. Hatta finans, ekonomik yapının en büyük sektörlerinden biridir. Bir ekonominin gelişmesi büyük ölçüde reel sektör faaliyetlerine bağlı olmakla birlikte, finans kurumu olarak bankalar, ekonomik faaliyetleri kolaylaştırmakta ve gelişimini desteklemektedir. Bankalar, fon arz ve talebinde aracılık yapmakta, yatırımların finansmanına kaynak sağlamakta, güvenli aracılık işlevini yerine getirerek iç ve dış ticaretin gelişimine yardımcı olmakta, işletmelere, bireylere veya devlete gerektiğinde likidite sağlamakta, para ve maliye politikası uygulamalarının başarısına katkı sağlamaktadır.

Türk bankacılık sektörü, ticari, katılım, kalkınma ve yatırım bankaları olarak tüm gruplarda güçlü mali yapısı, çağdaş bankacılık ürünleri, hizmet kalitesi ve yüksek teknoloji kullanımı ile uluslararası finansal piyasalarda rekabet edebilir durumdadır. Aşağıdaki Çizelgede; para ve kredi piyasalarında faaliyet gösteren, kredi, mevduat, varlık büyüklüğü gibi tüm bankacılık ölçütlerinde sektörün en büyük paya sahip finansal aracı kurumları mevduat bankaları olarak da adlandırılan ticari bankalar olduğu görülmektedir.

Çizelge 1. Türk Bankacılık Sektörü Temel Veriler (31.12.2022) (Milyon TL) Table 1. Turkish Banking Sector Key Data (31.12.2022) (Million TL)

Taraf Bilgisi/(Milyon TL)	Banka Sayısı	Kredi Tutarı	Takipteki Krediler	Toplam Mevduat	Top.Yabancı Kaynak	Toplam Özkaynak	Toplam Kâr	Sermaye Yeterlik	Toplam Varhk	Piyasa Payı
Mevduat Bankaları	32	6.517.978	149.852	7.970.792	11.114.561	1.226.089	380.041	%19	12.340.649	%86
-Kamu Sermayeli	3	2.937.286	47.748	3.614.762	5.016.486	400.203	79.921	%16	5.416.689	%38
-Özel Sermayeli	8	2.054.092	57.295	2.545.066	3.536.315	514.961	191.615	%23	4.051.247	%28
-Yabancı Sermayeli	21	1.526.600	44.810	1.810.964	2.561.759	310.955	108.506	%20	2.872.714	%20
Kalkınma ve Yatırım Bnk	16	484.014	4.443	0	723.710	95.415	21.874	%23	819.125	%6
Katılım Bankaları	6	578.679	9.114	891.066	1.103.391	84.225	29.699	%21	1.187.615	%8
Türk Bankacılık Sektörü	54	7.580.668	163.410	8.861.858	12.941.661	1.405.729	431.614	%19	14.347.390	%100

Kaynak: BDDK (2023)

Ticari bankalar, mevduat toplayabilen ve tüm bankacılık hizmetlerini yapabilen bankalarıdır. Türk bankacılık sektöründe krediler, mevduat, ve aktif büyüklüğü gibi ölçütler bazında incelendiğinde; ticari bankaların varlık büyüklüğünün sektörün % 86'sını oluşturduğu, toplam kredilerin % 86'sının ticari bankalar tarafından kullandırılmakta olduğu, mevduatın % 90'ının bu bankalara yatırıldığı ve toplam kârın % 88'inin ticari bankalar tarafından üretildiği görülmektedir. Ticari (mevduat) bankalarının "kaydi para" yaratabilme özelliği nedeniyle para piyasalarında, etkin kaynak dağılımını sağlaması yönüyle de sermaye piyasalarında oldukça önemli bir yeri vardır. Ticari bankalar yönetim ve sermaye kontrolü yönünden kamu, özel ve yabancı sermayeli bankalar olmak üzere üç gruba ayrılmaktadır. Türkiye'de 3 kamu sermayeli, 8 özel sermayeli ve 21 yabancı sermayeli ticari banka faaliyet göstermektedir. Son yıllarda, gelişmekte olan birçok ekonomide olduğu gibi ülkemizde de yabancı sermayeli ticari bankaların payı giderek artmaktadır.

Kalkınma ve yatırım bankaları işletmelere yatırım ve proje kredisi şeklinde orta ve uzun vadeli fon sağlamak amacıyla kurulmuş finansal kurumlardır. Bu bankaların mevduat toplama yetkileri olmadığından, yurtiçi veya yurtdışından kredi veya menkul kıymet ihracı yoluyla fon sağlamaktadırlar. Kalkınma bankalarının vatırım bankalarından en önemli farkı, kalkınma bankalarının sermaye piyasalarının gelişmediği ekonomilerde kalkınma amaçlı sanayi ve ticari faaliyetlerin finansmanı amacıyla faaliyet gösteriyor olmalarıdır. Kalkınma bankaları genellikle kredi vermek suretiyle kaynak sağlamakta iken, yatırım bankaları işletmelerin sermaye piyasalarından orta ve uzun vadeli fon sağlamalarına da aracılık yapmaktadır. Türkiye'de 16 kalkınma ve yatırım bankası faaliyette bulunmakta olup, aktif büyüklüğü olarak sektörün %6'sına yakın bir pay almaktadır.

Katılım Bankaları ise, fon toplama ve kredi kullandırma faaliyetinde kâr ve zarara katılma modeli ile faize duyarlı birimlere fon sağlamak veya bu hassasiyete sahip kişilerin tasarruflarını ekonomiye kazandırmak amacıyla kurulmuş ve faaliyet göstermekte olan bankalardır. Türkiye'de 6 adet katılım bankası faaliyet göstermekte olup, bankacılık sektörü varlık büyüklüğünün % 8'ine sahiptir.

Literatür İncelemesi

Bankalarda net faiz marjı analizi, geleneksel (teorik) ve modern (ampirik) yaklaşım olmak üzere iki şekilde incelenmektedir. Geleneksel yaklaşımlarda banka net faiz marjını belirleyen faktörlerin etkisi bankaların bilançolarının analiz edilmesi yöntemiyle yapılırken, modern yaklaşımlarda bankanın yapısına, verilere bağlı olarak sayısal yöntemlerle açıklanmaktadır.Bankalarda Net Faiz Marjını Açıklamaya Yönelik Teorik Çalışmalar

Klein (1971) ve Monti (1972) tarafından geliştirilen "monopoly" (tekel) veya maliyet fonksiyonu modelinde; bankaların temel faaliyet alanı mevduat toplama ve kredi kullandırımı olarak tanımlanmakta, maliyetin (C) mevduat (D) ve kredinin (L) bir fonksiyonu (C=f(D,L) olduğu kabul edilmekte, mevduat ve kredi piyasalarında eksik rekabetin olduğu, bankaların kredi veya mevduat faizlerinden en az birini belirlemede tekel gücüne sahip oldukları, bu nedenle, bir bankanın hem kredi hem de mevduat piyasalarında faaliyet göstermesinin marjinal maliyetinden daha yüksek bir fiyat talep etme yeteneğini yansıttığı ifade edilmektedir. Ayrıca; tam rekabet piyasasında varlık yönetiminde marjinal maliyetin net faiz marjına eşit olması gerektiği belirtilmekle birlikte, gerçekte tam rekabet piyasasının olmayacağı iddia edilmekte, banka sisteminin tekelci veya oligopolistik olduğu varsayılarak, kâr maksimizasyonunun sistemdeki banka sayısına (Cournot modeli) bağlı olarak değişebileceği belirtilmektedir (Erol 2007).

Bankalarda net faiz marjlarını açıklamaya yönelik öne çıkan ikinci teorik model, Ho ve Saunders (1981) tarafından ortaya atılan "dealership" (bayilik) modelidir. Bu görüşe göre; kredi talebi ile mevduat arzı asimetrik bir gelisim gösterdiğinden, kredilerin ve mevduatların vadelerinin farklı olması, bankaları uzun veya kısa pozisyon tutmak zorunda bırakacak, bu durum bankalar için maliyet unsuru olduğu kadar bankaları faiz riski ile de karşı karşıya bırakacaktır. Bu nedenle NFM kredi ve mevduat faiz oranlarını belirleyen dinamik bir araca dönüşmektedir. Bankanın optimal net faiz marjının; piyasa yapısına, banka yönetiminin risk algısına, bankanın aktif ve pasif yapısına, bankalar arasındaki fon toplama ve kredi kullandırma konusundaki rekabet derecesine bağlı olduğu açıklanmıştır. Bu model, banka (faiz) marjlarının belirleyicilerinin analizinde yeni ufuklar açmış ve bu alandaki ampirik analizlerinin coğu icin referans olmustur (Erol 2007).

Freixas ve Rochet (1997), Monti-Klein modelinde kredi talep eğrisinin negatif eğimli, mevduat arz eğrisinin ise pozitif eğimli olduğunu, kredi ve mevduat denge seviyesinin mevduat ve kredi faiz oranlarının eşitlendiği noktada gerçekleşeceğini belirtmekle birlikte, mevduat ve kredi faiz oranlarının belirlenmesinde faiz oranlarının Merkez Bankası veya piyasalar tarafından belirlendiği kabul edilerek, bankaların kârlılıklarının net faiz marjı ile operasyonel maliyetlerin bir fonksiyonu olduğunu iddia etmişlerdir.

Angbazo (1997) çalışmasında daha riskli kredilere ve daha yüksek faiz oranı riskine maruz kalan bankaların daha yüksek net faiz marjına sahip olacakları hipotezini test etmektedir. ABD bankacılık sektöründe 1989-1993 yıllarını kapsayan farklı büyüklükteki ticari bankalar için Ho ve Saunders (1981)'ın modeline kredi ve faiz riski eklemiş farklı aktif büyüklüğüne sahip bankaların net faiz marjlarının hem temerrüt hem de faiz oranı risk primini yansıttığını göstermiştir. Çalışmada, banka büyüklükleri ile temerrüt ve faiz oranı riski arasında önemli farklılıklar belirlenmiştir. Büyük bankaların faiz marjları, faiz oranı riskine duyarlıdır, ancak temerrüt riskine duyarlı değildir. Daha küçük yerel bankalar hem temerrüde düşme hem de faiz oranı riskine karşı hassastır. Bu durum, büyük bankaların kısa vadeli varlıklarda daha fazla yoğunlaşması ve vadeli işlemler ve diğer bilanço dışı enstrümanları kullanarak faiz oranı riskinden korunmada daha başarılı olmaları ile açıklanmaktadır.

Wong (1997) çoklu belirsizlik ortamında, hem faiz hem de kredi riski ile karşı karşıya olan ve riskten kaçınmaya özen gösteren bankanın net faiz marjının belirlenmesine yönelik basit bir teorik model geliştirmiş, maliyet, yasal düzenlemeler, kredi riski ve faiz oranı riskinin banka faiz marjını nasıl etkilediğini incelemiş, banka faiz marjının, bankanın piyasa gücü, işletme maliyetleri, kredi ve faiz oranı riskinin derecesi ile pozitif ilişkili olduğunu bulmuştur. Bununla birlikte, bankalararası piyasa faiz oranlarının NFM üzerindeki etkisini bankanın piyasadaki net pozisyonu belirleyeceğinden, faiz oranlarının banka NFM üzerine etkisinin belirsiz olduğu, faiz oranı riskinin önemsiz olduğu durumlarda ise, bankanın öz sermayesi ile NFM'nın negatif ilişkili olduğu belirtilmiş olup, bu sonuçların, Ho ve Saunders (1981) ve Angbazo'nun (1995) çalışmalarını büyük ölçüde desteklediği görülmektedir.

Bankalarda Net Faiz Marjını Açıklamaya Yönelik Ampirik Çalışmalar

Banka faiz marjlarının belirleyicilerine yönelik literatür, büyük ölçüde bankalara özgü ve makroekonomik değişkenlerin etkisi üzerine odaklanmıştır. Aşağıda bu çalışmalardan örnekler sunulmuştur. Özellikle uluslararası sermaye akımlarının artması ile birlikte, birçok çalışmada yabancı banka girişlerinin ulusal bankaların net faiz marjlarına olan etkisi incelenmektedir. Yapılan çalışmaların önemli bir kısmında panel veri analizi veya regresyon modeli kullanılmıştır.

Calısmada, bankalarda net faiz marjının belirleyicileri Demirgüç-Kunt ve Huizinga (1999) ve Demirgüç-Kunt ve Huizinga (2000) çalışmasında yer alan model ve metodoloji baz alınarak oluşturulmuş bir model ile incelenmektedir. Bu calısmada; öncelikle net faiz marjının bankalar yönünden önemi, banka performansı veya finansal sağlamlığının belirlenmesinde bir ölçüt olarak kullanılmasının nedeni sistematik olarak açıklanmıştır. Türkiye'de bankacılık sektörünün Pazar payının % 90'ına yakın bölümünü temsil eden ticari bankalarda net faiz marjının belirleyicileri, geniş bir dönemi kapsayan veri seti ile analiz edilmektedir. Bankanın sermaye veya sahiplik yapısı yönüyle bir ayrım yapılmaksızın ticari bankaların piyasa gücü en yüksek 15 bankanın incelemeye dahil edilmiş olması, yine çalışmada bankalara özgü (içsel) değişkenlerin yanı sıra makro ekonomik (dışsal) değişkenlerin birlikte analiz kapsamına alınmış olması bu calısmavı diğer calısmalardan farklı kılmakta ve literatüre bu yönüyle önemli bir katkı sağlamaktadır.

Çizelge 2. Net Faiz Marjına İlişkin Amprik Çalışmalar Table 2. Studies on Net Interest Margin

Yazarlar	Kapsam ve Uygulanan Yöntem	Bulgular, Sonuç ve Öneri
Demirgüç-Kunt ve Huizinga (1999)	Sanayileşmiş ve gelişmekte olan 80 ülkede 1988-1995 dönemi verileri kullanılarak ağırlıklandı-rılmış en küçük kareler yöntemi ile bankaların NFM ve kârlılık performansını etkileyen faktörler banka bazında araştırılmıştır.	Bankaların NFM ve kârlılık performansının hem bankaya özgü hem de makroekonomik değişkenlerden, açık veya örtülü banka vergilendirmelerinden, mevduat sigorta sisteminden, yasal düzenlemelerden etkilendiği, banka varlıklarının GSYH'ya oranının yüksek, yoğunlaşma oranının düşük olduğu bankalarda NFM ve kârlılığın düşük olduğu, gelişmekte olan ülkelerde yabancı bankaların marjları ve kârlarının yerli bankalardan daha yüksek, sanayileşmiş ülkelerde bunun tersi daha düşük olduğu, gelişmekte olan ülkelerde, kurumlar vergisi yükünün müşterilere yansıtıldığı ancak zorunlu karşılık yükünün yansıtılmadığı belirlenmiştir.
Demirgüç-Kunt ve Huizinga (2000)	Sanayileşmiş ve gelişmekte olan ülkelerde bankacılık verileri kullanılarak mali sektör gelişmişlik düzeyinin banka NFM ve kârlılık performansına etkisi 1990-1997 yıllarını kapsayan veriler kullanılarak panel veri yöntemiyle incelenmiştir.	Finansal sistemlerinin banka tabanlı veya piyasa tabanlı olma derecesine göre farklılık göstereceği, (Almanya ve Japonya'nın finansal sistemleri banka temelli, ABD ve İngiltere'nin sistemleri piyasaya dayalı kabul edilir), Bankacılık sektörü aktif büyüklüğünün hisse senedi piyasası büyüklüğüne oranlanarak banka finansmanının piyasa finansmanına oranının belirlendiği, bir ülkenin banka sistemi geliştikçe rekabetin artacağı ve banka NFM'nın azalacağı, ülkeler zenginleştikçe ve finansal sistem geliştikçe NFM ve kârlılığın azalacağı belirtilmiştir.
Kaya (2001)	Türk bankacılık sektöründe 1986-2000 dönemi verileri ve en küçük kareler (Ordinary Least Sguares) yöntemi ile bankalarda NFM'lerin belirleyicileri modellenmiştir.	Zorunlu karşılık oranlarındaki artışın, cari işlemler dengesi/Merkez Bankası rezervlerindeki düşüşün, menkul kıymet cüzdanının toplam varlıklara oranındaki artışın, ödenecek vergi, resmi harç ve primlerin toplam varlıklara oranındaki artışın faiz marjını artırdığı, toplam varlıklar/M2 oranındaki artışın net faiz marjını düşürdüğü belirlenmiş, sektörde faiz marjlarının yüksek olmasının mali sistemin etkinliğini olumsuz etkilediği, bu nedenle kârlılığın etkinlik artışıyla sağlanmasına yönelikpolitikaların üretilmesi gerektiği vurgulanmıştır.
Demirgüç-Kunt, Laeven ve Levine (2004)	Farklı gelişmişlik düzeyinden 72 ülkeden 1400'den fazla bankanın verileri kullanılarak panel veri analizi modeliyle bankalara ilişkin düzenlemelerinin, piyasa yapısının ve ulusal kurumların banka NFM	Banka girişleri ve banka faaliyetlerine ilişkin sıkı düzenlemelerin finansal aracılığın maliyetini artırdığı, enflasyonun banka marjları ve genel giderler üzerinde güçlü, olumlu, bankaya özgü faktörlerin kontrol edildiği durumda yoğunlaşmanın net faiz marjları üzerinde pozitif etkisinin

	ve genel giderler üzerindeki etkileri incelenmiştir.	olduğu ancak, verimlilik ile arasında pozitif bir bağlantının olmadığı saptanmıştır.
	Avrupa bankacılık sektörlerindeki	Çalışmada, Ho ve Saunders (1981) modelinin yanı sıra farklı
	(Almanya, Fransa, Birleşik Krallık, İtalya ve İspanya) faiz marjı 1993-2000 döneminde	pazarlardaki rekabet derecesinin bir ölçüsü (Lerner endeksi) de kullanılarak, Avrupa bankacılık sisteminde Net Faiz Marjlarının,
Guevara (2004)	15.888 gözlemden oluşan bir panel veri	rekabet koşulları (piyasa gücü ve yoğunlaşma) ile doğrudan
	kullanılarak analiz edilmiştir.	uyumlu olduğu belirlenmiştir.
	Dört Güneydoğu Asya ülkesindeki	Bölge bankalarında NFM'nın kısmen faaliyet giderleri, sermaye
	bankaların NFM'larının belirleyi-cileri Ho ve	yapısı, kredi kalitesi, teminat ve likit varlıklar gibi bankaya özgü
Doliente (2005)	Saunders (1981)'ın dealer modeli esas	faktörler tarafından belirlendiğini, bunun nedeninin büyük
	alınarak iki adımlı regresyon modeli kullanılarak araştırılmıştır.	ölçüde bölgenin bankacılık sistemlerinin rekabetçi olmayan yapısından kaynaklandığını açıklamaktadır.
	Kullarıllarak araştırılırılıştır.	Farklı gruptaki bankaların, kredi, faiz oranı ve vade yapısı
	ADD bankanılık saltöründə fərklı banka	şoklarına değişen derecelerde duyarlı oldukları, büyük ve
c	ABD bankacılık sektöründe farklı banka gruplarının NFM'larının kredi, faiz oranı ve	çeşitlendirilmiş ürün yapısına sahip bankaların, faiz oranı ve
Hanweck ve Ryu	vade yapısı şoklarına nasıl tepki verdiği	vade yapısı şoklarına karşı daha az duyarlı, ancak kredi
(2005)	1986-2003 dönemi panel veri yöntemi ile	şoklarına karşı daha duyarlı olduğu, bankaların faiz oranı oynaklığına karşı tam olarak korunma sağlayamadıkları, faiz
	analiz edilmiştir.	oranlarındaki oynaklığın net faiz marjını etkilediği sonucuna
		varilmıştır.
	Almanya, İspanya, Fransa, Hollanda, İtalya,	Piyasa gücü ve risk verileri ile net faiz marjı arasında bir ilişki
	İngiltere ve İsveç bankalarının 1994-2001	olduğu, ancak bu ilişkinin bankaların uzmanlıklarına göre
Valverde ve y Fernandez	ıılları arasındaki verilerini kullanarak piyasa gücünün banka NFM üzerine etkileri	farklılaştığı, bankaların uzmanlaşma veya ürün çeşitlendirmesi yoluyla gelirlerini ve piyasa güçlerini artırabildikleri, temel
(2007)	Genelleşmiş Momentler Yöntemi	bankacılık faaliyet alanlarında yoğun bir rekabetin yaşandığı,
	(Generalised Method of Moments-GMM)	bu rekabet sonucu daralan faiz marjları açığını kapatmak için
	ile incelenmiştir.	bankacılık hizmet gelirlerinin kullanıldığı belirtilmiştir.
G	Gelişmiş ve gelişmekte olan 15 ekonominin	Gelişmiş ülke bankalarının NFM'nin gelişmekte olan ülke
López-Espinosa, Moreno ve	1999-2008 verileri ile bankacılık	bankalarından daha düşük olduğu, faiz oranı oynaklığı ile NFM arasında pozitif ve güçlü bir ilişki olduğu, enflasyon riskinin
Pérez de Gracia	sektörlerinde NFM'nin belirleyicileri çok	ülkeler arası farklılıklarla ilgili bir değişken olduğu, Uluslararası
(2011)	yollu küme tahmin metodolojileri ve zaman serisi analizi ile incelenmiştir.	Finansal Raporlama Standartlarının uygulanmasının daha
		düşük NFM'na neden olduğu bulunmuştur.
a	Gelişmekte olan 55 ülkede faaliyet gösteren 978 bankanın 2000-2007 dönemi	Bankaların faiz dışı gelir getirici faaliyetlerini çeşitlendirmek için iç finansman kullandıklarında piyasa gücünün arttığı,
ع Amidu ve Wolfe	verileri kullanılarak yapılan regresyon	bankaların yüksek net faiz marjlarının piyasa gücünün artığı,
	analizi ile piyasa gücü, fonlama stratejisi ve	ve örtülü faiz ödemelerinin derecesi ile açıklanabileceği
t	oanka performansının faiz marjları üzerine	belirtilmiş, bankacılıkta serbestleşmenin teşvik edilmesi
	etkileri araştırılmaktadır.	önerilmiştir.
	Avusturya bankacılık sektörüne dahil 1011 Dankanın 1996-2012 çeyrek dönemlik veri	Avusturya'da, faiz geliri diğer gelir kaynaklarına hakim
Gunter, Krenn	setini içeren 42.000 gözlemle Ho ve	olduğundan, NFM'nın bankaların en önemli gelir
ve Sigmund S	Saunders (1981) modelinin uygulanmasına	kalemlerinden biri olduğu, net ücret geliri ile personel ve diğer işletme giderlerinin NFM üzerindeki etkisinin negatif, risk
(2013) y	önelik ekonometrik yaklaşım ve panel veri	ağırlıklı varlıkların pozitif ve kredi zarar karşılığı ve kaldıraç
	analizi ile NFM'nın temel belirleyicileri araştırılmıştır.	oranının negatif etkili olduğu belirlenmiştir.
Raharjo,	Endonezya'da Ticari bankaların NFM'nı	Endonezya ticari bankalarının net faiz marjının, bankaya
Hakim,	etkileyen bankaya özgü ve	özgü tüm değişkenlerden farklı önem düzeylerinde
Manurung ve	makroekonomik faktörler, 2008-2012	etkilendiği ancak, ROA'nın kesinlikle pozitif etkiye sahip
	dönemi için panel veri regresyon üzerine	olduğu, faiz marjlarını %5 seviyesinde en fazla etkileyen
(2014)	sabit etkiler modeli ile incelenmiştir.	dışsal değişkenin enflasyon olduğu belirtilmiştir. NFM'nın banka operasyonlarının etkinliğini ve istikrarını
Sakana B	Baltık ülkeleri, Avrupa ve ABD'deki	değerlendirmek için uygun bir kriter olduğunu, bankanın
(2014)	oankacılık sektöründe NFM'nın	faiz getiren varlıklarını ne kadar başarılı bir şekilde
() d	linamiklerini analiz etmiştir.	yönettiğini göstermede NFM'nın aktif getirisinden daha
		üstün bir gösterge olduğunu açıklamaktadır. Faiz oranlarındaki artışın kısa vadede bankaların net faiz
	Alman bankacılık sistemi için 40 yılı aşkın	marjlarını olumsuz, uzun vadede ise tam tersi olarak
Memmel(2015)	bir zaman serisi kullanılarak, piyasa faiz	olumlu etkilediği belirlenmiştir. Bankalar, yükselen faiz

	oranları ile bankaların NFM arasındaki ilişki incelenmiştir.	ortamında kısa vadede kaybederken, uzun vadede fayda sağlamaktadır.
Entrop, Memmel, Ruprecht ve Wilkens (2015)	Alman evrensel bankacılık sisteminde "kredilerin ortalama vadesinin mevduatın vadesini aşmasının etkisi dikkate alınarak vade riskinden kaynaklanan faiz riskinin NFM'nı nasıl etkilediği" 2000-2009 dönemi verileri ile Ho ve Saunders'ın (1981) modeli genişletilerek araştırılmıştır.	Bankaların, toplam varlık ve kaynaklarının miktarı ve vadesine göre mevduata yüksek faiz ödeyerek ve krediler için yüksek faiz oranları belirleyerek faiz oranı riskini fiyatladıklarını, bu nedenle banka NFM'larının hem makro- ekonomik risklere, hem de bankaya özgü vade farkı ve vade dönüşümünden beklenen elde tutma süresine ve aktif- pasif dengesine bağlı olduğunu iddia etmişlerdir.
Yüksel ve Zengin (2017)	Türk bankacılık sektöründe net faiz marjını etkileyen faktörler 2003-2014 dönemi verileri çok değişkenli uyarlamalı regresyon çizgileri modeli (Multivariate Adaptive Regression Splines) kullanılarak test edilmiştir.	Net faiz marjının faiz dışı gelir, takipteki krediler, toplam aktifler ve döviz kurları ile negatif ilişkili olduğu belirlenmiş, bankaların net faiz marjını artırmak için aktif kalitesine odaklanmaları ayrıca, döviz kurlarındaki oynaklığın da bankalar tarafından dikkate alınmasının gerektiği önerilmiştir.
Brummelhuis ve Luo (2019)	Araştırmacılar hem doğrusal hem de doğrusal olmayan makine öğrenimi regresyon teknikleri ile NFM'nın tahmini ve sermaye yeterliliği stres testlerinin etkinliğini test etmeyi amaçlamışlardır.	Stress testlerinin etkinliğinin ölçülmesine yönelik ilk araştırma olma özelliğine sahip bu çalışmada tahmin doğruluğu karşılaştırma-larından elde edilen sonuçların, mevcut tahmin literatüründeki sonuçlarla tutarlı ya da onları tamamlar nitelikte olduğu belirlenmiştir. Ancak benzer çalışmaların farklı bölgelerde ve farklı banka türlerinde de yapılmasının uygun olacağı önerilmektedir.
Chaudron, Haan ve Hoeberichts (2020)	Hollanda'da 41 bankanın 2008-2016 döneminde getiri eğrisindeki düzleşmenin ve düşen faiz oranlarının NFM üzerindeki etkileri incelenmiştir.	Faiz oranları düştüğünde NFM'nın sabit kaldığı, NFM ile faiz oranları arasındaki ilişkinin riskten korunma davranışıyla ilişkili olduğu, NFM'nın faiz oranlarından çok bankaların rekabet/piyasa gücünden etkilendiği belirlenmiştir.
Klein (2020).	Bu çalışmada, düşük (ancak) pozitif ve negatif piyasa faiz oranlarının euro bölgesi bankalarının net faiz marjı ile kredi ve mevduat faiz oranları üzerindeki etkisi Euro bölgesi için iki özel banka veri seti kullanılarak incelenmektedir.	Kısa vadeli piyasa faiz oranlarının Euro bölgesi bankalarının net faiz oranı ile pozitif ilişkili olduğu, faiz oranları düştükçe etkisinin arttığı belirlenmiştir. Negatif faiz oranları ile düşük ama pozitif faiz oranları arasındaki fark anlamlı ve ekonomik olarak önemlidir. Negatif piyasa faiz oranlarının olduğu durumda, kısa vadeli faiz oranındaki %1'lik bir düşüşün, aylık NFM'de %3,2'lik bir düşüş, düşük fakat pozitif oranlarda ise %1,2'lik bir düşüş anlamına gelmekte olduğu vurgulanmıştır.
Kusi, Agbloyor, Gyeke-Dako ve Asongu (2020).	Özel ve kamu mali sektör şeffaflığının banka faiz marjları üzerindeki etkisi, 86 ülke ekonomisinde 2005-2016 yılları verileri kullanılarak iki aşamalı genelleştirilmiş momentler yönte-mi kullanılarak incelenmiştir.	 Hem özel hem kamu sektörü tarafından yönetilen finansal sektör şeffaflığının NFM'nı azalttığı, örneklem alınan ülkelerde toplumun yararı için NFM'nı düşük tutmak gerektiği, bunun için de finans sektörü şeffaflığını derinleştiren ve genişleten politikalar ve yasalar üretilmesinin uygun olacağı belirlenmiştir. Çalışmada literatürde ABD tahvillerinin faiz oranı riskinin sıfıra yakın olduğu önermesine ulaşmak için kullanılan ABD
Begenau ve Stafford (2022)	ABD'de ticari bankalara ilişkin 1985-2002 dönemi verileri kullanılarak uzun ve kısa vadeli sabit getirili menkul kıymet portföylerde istikrarlı net faiz marjlarının mevduat faiz oranları veya piyasa gücüne duyarlılığı incelenmiştir.	Hazine tahvilleri portföy stratejileri örneğinde bile, bu portföylerin istatistiksel olarak güvenilir ve ekonomik olarak büyük faiz oranı riskine maruz kaldığı, faiz oranı riskinin, endüstri standardı performans ölçütlerine göre hiç risk önermeyen portföylerde bile olabileceği, bankaların net faiz marjlarının, bankaların faiz oranı riskine maruz kalabilmeleri hakkında bilgi vermediğini, piyasa oranlarının banka mevduat oranlarına tam olarak geçmediği, her banka belirli oranda piyasa gücüne sahip olduğundan piyasa gücünün faiz oranı riski ve NFM üzerindeki etkisinin sınırlı olduğu değerlendirilmiştir.

 Table 5. Development of Net Interest Margin in Banking Sector and Commercial Banks											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
BANKACILIK SEKTÖRÜ	4,07	3,72	3,53	3,45	3,65	3,77	3,91	3,85	3,91	3,76	6,46
Ticari Bankalar	4,08	3,74	3,55	3,47	3,69	3,82	4,00	3,97	4,04	3,90	6,74
Kamu Mevduat Bankaları	4,20	3,92	3,39	3,28	3,68	3,51	3,33	3,25	3,51	3,09	6,02
Özel Mevduat Bankaları	3,72	3,49	3,49	3,37	3,49	3,67	4,16	4,33	4,34	4,31	7,50
Yabancı Mevduat Bankaları	5,21	4,27	4,09	3,84	3,99	4,41	4,64	4,53	4,54	4,79	6,90

Çizelge 3. Bankacılık Sektörü ve Ticari Bankalarda Net Faiz Marjının Gelişimi
Table 3 Development of Net Interest Margin in Banking Sector and Commercial Banks

Kaynak: BDDK (2023)

Bankalarda Net Faiz Marjının Yönetiminin Önemi

Net faiz marjı (NFM), bir finans kurumunun krediler ve alacaklarından elde ettiği faiz gelirini, mevduat sahipleri veya ulusal ve uluslararası piyasalardan kullanılan kredilere ödediği faiz gideri ile karşılaştırma yapılmasını sağlayan bir ölçüt olup, aynı zamanda bir banka veya finans kurumunun uzun vadede başarılı olma olasılığını açıklayan bir kârlılık veya performans göstergesidir. Finansal araçların artan çeşitliliği, teknolojik ilerleme ve finansal kurumların artan birbirine bağımlılığı karşısında, net faiz marjının banka operasyonlarının etkinliğini ve istikrarını değerlendirmek, bankanın faiz getiren varlıklarını ne kadar başarılı bir şekilde yönettiğini anlamak açısından takip edilen bir değişkendir.

Net faiz marjı, bankalar için bir başarı göstergesi olduğu kadar, hisse senedi yatırımcıları için de yatırım kararlarının değerlendirilmesinde dikkate alınacak bir değerlendirme ölçütü olarak kabul edilmektedir. Çünkü, NFM'nın pozitif olması bankanın finansal performansını, faaliyetlerini şekilde kârlılığını ve başarılı bir sürdürdüğünü, negatif olması ise banka performansının düşük olduğunu, bu banka pay senetlerine yatırım yapılması halinde beklenen verimin sağlanamayacağını ifade etmektedir. Banka vöneticileri de NFM'nı takip ederek, gerektiğinde kaynak maliyetini düşürmek veya fon kullanımlarını, yani plase edilebilir kaynaklarını daha verimli alanlara yönlendirmek için politika ve stratejilerini geçirebileceklerdir. gözden Bankacılık sisteminde mevduat ve kredilerin vade uyumsuzluğu bankaların finansal piyasalarda özellikle para piyasasında uzun veya kısa pozisyon tutmalarını gerektireceğinden, bu durum bankalar için hem maliyet hem de risk unsuru olacaktır. Asağıda bankacılık sektörü ve ticari bankaların net faiz marjlarının son 10 yıllık gelişimi karşılaştırmalı olarak yer almaktadır.

Çizelgeden mevduat bankaları içinde en yüksek faiz marjıyla çalışan bankaların yabancı bankalar olduğu anlaşılmaktadır. Bu durum, yabancı bankaların yerli bankalara göre yurtdışından daha kolay ve ucuza sağladıkları kaynakları, yerel bankalara benzer bir fiyatlandırmayla, kredi kullandırarak ve/veya menkul kıymet yatırımlarına plase ederek oluşan yüksek faiz marjıyla çalışmalarından kaynaklanmaktadır. Türk Bankacılık sisteminde diğer ülke örneklerine benzer şekilde, enflasyon ve reel faizlerin yüksek olduğu dönemlerde faiz marjları yüksektir. Gruplar itibariyle bakıldığında, özel ticari bankaların kamu bankalarına göre daha yüksek faiz marjlarıyla çalıştıkları görülmektedir. Ancak kamu bankalarının düşük faiz marjlarıyla çalışmalarını bir etkinlik göstergesi olarak yorumlamak olanaklı değildir. Kamu bankalarının düşük net faiz marjı oranları ile çalışması, kendilerine verilen çeşitli görevler nedeniyle düşük faizlerle kredi vermeleri ve kamu vadesiz mevduat kaynakları nedeniyle mevduata olan bağımlılıkların ve kaynak maliyetinin düşük olmasından kaynaklanmaktadır.

Makroekonomik açıdan değerlendirildiğinde ise NFM'nın yüksek olması özellikle ekonomik ve finansal istikrarsızlığın hakim olduğu ülkelerde veya dönemlerde finansal aracılık hizmetinin maliyetini artıracağından toplam yatırımların azalmasına, ekonomik büyümenin gerilemesine ve kaynak dağılımının bozulmasına neden olabilecektir. NFM'nın yüksek olması bankalar için bir performans göstergesi iken, azalan net faiz marjı kaynakların yeniden dağılımında bankacılık sisteminin daha fazla etkinliğine işaret etmesi nedeniyle ekonomik açıdan olumlu bir gelişme olarak kabul edilebilir.

Ekonometrik Metodoloji, Veri Seti ve Ampirik Bulgular

Bu çalışmanın amacı; Türk Bankacılık Sisteminde toplam piyasa gücü % 90'a yaklaşan varlık büyüklüğü en yüksek 15 ticari bankanın (Akbank, Alternatifbank, Denizbank, Fibabanka, HSBC, ING Bank, QNB Finansbank, Şekerbank, TEB, Türkiye Cumhuriyeti Ziraat Bankası, Türkiye Halk Bankası, Türkiye Vakıflar Bankası, Türkiye İş Bankası, Garanti Bankası, Yapı Kredi Bankası) net faiz marjının bankalara özgü değişkenler ve makro değişkenler bazında araştırılması, net faiz marjının ticari bankaların finansal yapısına etkisinin incelenmesidir.

Çalışmada kullanılan bağımsız değişkenler ile ilgili olarak aşağıda kısaca bilgi verilmiştir:

a) Özvarlık Kârlılığı (Return on Asset-ROA; ROA, bankanın sahip olduğu toplam varlıklar üzerinden elde edilen geliri ölçmek için kullanılmaktadır. Bankaların kârları büyük ölçüde faiz gelirlerinden oluştuğundan, bu oran bir bankanın yönetiminin etkinliğinin de önemli bir göstergesi olup, net kâr ile net faiz marjı arasında pozitif bir ilişki olmalıdır.

b) Toplam Varlıklar (Logarithm of Total Assets-LOGTA); Toplam varlıklar, banka büyüklüğünü ölçmek için kullanılan bir değişkendir. Banka büyüklüğü ile NFM arasında genel olarak pozitif bir ilişki olduğu kabul edilmekle birlikte, bankalar büyüdükçe bürokratik veya diğer nedenlerle ölçeğe göre getiri veya toplam aktiflerin kalitesine bağlı olarak farklı sonuçlara ulaşılabilir. c) Piyasa Gücü (Market Power Ratio-TATBS); Bir bankanın toplam varlıklarının bankacılık sektörü içindeki payını ifade etmektedir. Piyasa gücüne sahip bankalar, piyasa fiyat belirleyebilme gücüne sahip olduğundan, NFM üzerinde pozitif bir etkisinin olacağı kabul edilmektedir.

ç) Kredi Oranı (Loan Rate-TLCTA); Bankanın toplam varlıkları içinde en önemli gelir getiren varlıkları kredilerdir. Kredilerin toplam varlıklar içindeki payının artması durumunda, kredilerden elde edilen faiz gelirleri de artacaktır. Bu nedenle kredi tutarı ile net faiz marjı arasında doğrusal bir ilişki olması beklenmektedir.

d) Mevduat Oranı (Deposit Rate-TLDTA); Bankaların mevduat büyüklüğünün hızla artması, bankanın mevduat pazar payını artırmak için mevduata yüksek faiz ödediği, bu durumun faiz giderlerini artırdığı kabul edildiğinden normal olarak mevduat oranı ile NFM arasında negatif yönlü bir ilişki gerçekleşebilir.

e) Likidite Riski (Liquidity Risk-LATA); Bankacılık sektörü riskli bir sektör olup, her banka faaliyetlerini yürütürken temel olarak kredi, piyasa riskleri ile operasyonel risklerinin yanı sıra önemli bir risk unsuru olan likidite riskinin yönetimine de özel bir önem vermek zorundadırlar. Bu süreçte, bankaların ihtiyatlı bir likidite tercihi ile yüksek miktarda likidite oranına sahip olması, bankanın bu tutarı yüksek gelir getiren kredi plasmanları yerine düşük getirili likit varlıklara yatırmakta olduğu sonucuna varılmaktadır. Bu durum nedeniyle likidite oranı ile net faiz marjı arasında negatif bir ilişki olabileceği kabul edilebilir.

f) Kredi Riski (Non Performing Loan-NPL); Finansal aracılık sürecinde bankaların karşılaştığı en büyük ve en önemli risklerden biri kredi riskidir. Kredi riskinin miktarı için tahsili gecikmiş alacakların toplam krediler içindeki payı dikkate alınmaktadır. Tahsili gecikmiş alacak tutarı yüksek olan bankaların faiz gelirleri düşük olacağından bu oranın NFM üzerinde negatif bir etkiye sahip olacağı öngörülmektedir.

g) Finansal Varlık Oranı (Financial Asset Ratio-FATA); Kredi portföyüne oranla finansal varlık portföyünden daha düşük faiz geliri elde edilmektedir. Finansal varlıklar piyasa faiz oranlarındaki dalgalanmalardan da daha fazla ve eş zamanlı etkilenmektedir. Bu nedenle banka toplam varlıkları içerisinde finansal varlık portföyünün büyük olması NFM'nı olumsuz yönde etkileyebilir.

ğ) Özkaynak Yapısı (Shareholders' Equity Structure-TETA); Banka özkaynaklarının yüksek olması plase edilebilir fon kaynaklarını artıracak, yabancı kaynak ihtiyacını ve faiz giderlerini azaltacaktır. Bu nedenle bankanın özkaynak tutarı ile net faiz marjı arasında pozitif bir ilişki beklenmektedir.

h) Sermaye Yeterliliği (Capital Adequacy Ratio-CAR); Bir bankanın, sahip olduğu her türlü varlığın risk taşıdığı ilkesine dayalı olarak, başta krediler olmak üzere, gelir getiren varlıklarındaki potansiyel riskleri kapsayacak şekilde gelir getiren varlıkların belirli bir oranı kadar sermaye bulundurması gerekliliğini veya sermaye yeterliliğini ölçmek için kullanılan bir orandır. Basel Bankacılık Denetleme Komitesi tarafından önerilen ve 5411 sayılı Bankacılık Kanununun 45. maddesinde düzenlenen "Bankalar, %8 oranından az olmamak üzere belirlenecek sermaye yeterliliği oranını hesaplamak, tutturmak, idame ettirmek ve raporlamak zorundadır, bankaların iç sistemleri, aktif ve mali yapıları dikkate alınarak asgari sermaye yeterliliği oranını artırmaya Bankacılık Düzenleme ve Denetleme Kurumu yetkilidir" hükmü çerçevesinde, Türkiye'de yasal % 8, hedef % 12 sermaye yeterliliği standart oranı öngörülmektedir. Bankalar, faaliyetlerini genişletmek için sermaye yeterliliklerini de asgari yasal sermaye oranının üzerinde tutmaya calışmaktadırlar. Kredi miktarının artırılması, kredi riskine maruz tutarı artıracak, bu durum daha yüksek sermaye tutarını zorunlu kılacak, buna bağlı olarak artacak sermaye maliyeti ise kredi faizleri ile mevduat faizleri arasındaki farktan karşılanacaktır. Bu nedenle sermaye yapısının banka NFM üzerine pozitif yönlü bir etkisinin olacağı acıktır.

ı) Faiz Gelirleri Oranı (Interest Income Ratio-NIEOE); Bankaların en büyük ve en önemli gelir kaynakları faiz gelirleridir. Toplam faaliyet gelirleri içinde faiz gelirlerinin artması banka NFM'nı olumlu yönde etkileyecektir.

i) Faiz Dışı Gelirleri Oranı (Non-Interest Income Ratio-FDGTA); Bankalar kredilendirme faaliyetleri dışında diğer aracılık faaliyetlerinden de gelir elde etmektedirler. Bankaların faiz dışı gelirlerinin önemli bir kısmı, döviz kur ve alım satım farkları, bankacılık hizmet gelirlerinden oluşmaktadır.

j) Türk Lirası Kredi Faizi (TL Loan Interst Rates-TRCIR); Net faiz marjı, bir bankanın net faiz gelirinin, bankaların ortalama gelir getiren varlıklarına oranıdır. Bankanın net faiz geliri, banka faiz geliri ile faiz gideri arasındaki farktan oluşmaktadır. Bu nedenle, net faiz marjı büyük ölçüde bankaların kredi ve mevduat faiz oranlarına bağlıdır.

k) Türk Lirası Mevduat Faizi (TL Deposit Interest Rates-TRDIR); Mevduat ve kredi faiz oranları, piyasa faizlerinden etkilenmektedir. Türkiye'de ticari bankalar mevduat faiz oranlarını belirlemekte, mevduat faizleri kredi faiz oranını etkilemektedir. Kredi ve mevduat faiz oranları aktif kalitesi, aktifin yapısı ve piyasa faiz oranlarına bağlı olarak NFM üzerinde etkili olabilecektir.

I) Döviz Kuru (USD Currency Rates-USDEX); Döviz kuru bankaların karşılaştıkları en önemli piyasa risklerden birdir. Döviz kurlarındaki oynaklık nedeniyle bankalar kur farkları nedeniyle önemli ölçüde zarar edebilir. Ancak, 2001 yılında yaşanan finansal krizden sonra bankaların açık pozisyon taşımaları sınırlandırılmış olduğundan, döviz kurları ile NFM arasında pozitif bir ilişki beklenebilir. Özellikle piyasada volatilitenin yüksek olduğu dönemlerde NFM daha hızlı artacaktır.

m) Enflasyon (Inlation-TÜFE); Enflasyon, ekonomide toplam talebin toplam arzı aşması nedeniyle ortalama fiyatlar genel düzeyinin sürekli artış göstermesidir. Yüksek enflasyon oranları genellikle yüksek faiz oranlarıyla ilişkilendirildiğinden, enflasyon ve banka kârlılığı, dolayısıyla da NFM arasında pozitif bir ilişki beklenmektedir. Ancak, bankanın faiz oranlarını enflasyona göre ayarlamakta yavaş davranması veya geç kalması durumunda faiz maliyetinin faiz gelirinden daha hızlı artması ve dolayısıyla bankaların kârlılığını olumsuz etkilemesi olasılığı da bulunmaktadır. Bu nedenle literatürde enflasyonun NFM üzerine etkisinde farklı sonuçlar elde edilebilmektedir. n) Ekonomik Büyüme (Growth Rate-GSYH); Ekonomik büyüme (Gayrisafi Yurtiçi Hasıla büyümesi) en önemli makroekonomik göstergelerdendir. Ekonominin genişleme dönemlerinde toplam para arzı artacak, faiz oranları düşecek, bu durum NFM üzerinde negatif yönlü etki yapacaktır. Ancak ekonomik büyümenin düşük olduğu dönemlerde işsizlik ve yatırımlardaki azalmaya bağlı olarak GSYH ile NFM arasında pozitif bir ilişki olacağını açıklayan çalışmalar da bulunmaktadır. Çalışmada Türk Bankacılık Sisteminde yer alan bankaların 2003:Q1-2022:Q2 dönemine ait üçer aylık finansal verileri kullanılmıştır. Kapsama alınan ticari bankalara ait finansal verilere Türkiye Bankalar Birliği ve Bankacılık Düzenleme ve Denetleme Kurumu resmi internet sitesinden erişim sağlanmıştır. Verilere ilişkin bilgiler Çizelge 4'de ekonometrik analizlerde kullanılacak olan kodları ve hesaplama yöntemleri ile paylaşılmıştır.

Çizelge 4. Çalışmada Kullanılan Değişkenler, Açıklamalar ve NFM Üzerine Beklenen Etki Table 4. Variables Used in the Study, Explanations and Expected Effect on NIM

Kod	Değişken	Tanım	NFM Üzerine
Kou	Degişken		Etkisi Teorik Beklenti
NFM	Net Faiz Marjı	Bağımlı Değişken (Net Faiz Geliri (Faiz Gelirleri-Faiz Gid,erleri) / Toplam Varlıklar) Bankalara Özgü Bağımsız Değişkenler	
ROE	Net Özkaynak Kârlılığı	(Vergi Sonrası Net Kâr/Toplam Özkaynaklar)	(+)
LOGTA	Toplam Varlıklar	Toplam Varlıklar (Toplam Aktiflerin Doğal Logaritması)	(+) (-)
TATBS	Piyasa Gücü	Toplam Varlıklar/Bankacılık Sektörü Toplam Varlıklar	(+)
TLCTA	Kredi Oranı	Toplam Krediler /Toplam Varlıklar	(+)
TLDTA	Mevduat Oranı	Toplam Mevduat/Toplam Varlıklar	(-)
LATA	Likidite Riski	Likit Varlıklar/Toplam Varlıklar	(-)
NPL	Kredi Riski	Tahsili Gecikmiş Alacaklar (Brüt)/Toplam Kredi ve Alac.	(-)
FATA	Finansal Varlık Oranı	Finansal Varlıklar (Net) / Toplam Varlıklar	(-)
TETA	Özkaynak Yapısı	Toplam Özkaynak/Toplam Varlıklar	(+)
CAR	Sermaye Yeterliği	Toplam Özkaynak/Risk Ağırlıklı Varlıklar	(+)
NIEOE	Faiz Gelirleri Oranı	Özel Karşılıklar Sonrası Net Faiz Gel/Top.Faal. Gel (Gid)	(+)
FDGTA	Faiz Dışı Gelirleri Oranı	Faiz Dışı Gelirler (net) / Toplam Varlıklar	(+) (-)
		Makroekonomik Bağımsız Değişkenler	
TRCIR	TL Kredi Faizi	Bankalarca Açılan Ticari Kredilere Uygulanan Ağırlıklı Ort. Faiz Oranları (TL %)	(+) (-)
TRDIR	TL Mevduat Faizi	Bankalarca Mevduatlara Uygulanan Ağırlıklı Ort. Faiz Oranları (TL %)	(+) (-)
USDEX	Döviz Kuru	ABD Döviz Satış Kuru	(+)
TÜFE	Enflasyon	Ort.Yıllık Enflasyon - (TÜFE 2003=100) Yıllık % Değişim	(+)
GSYH	Ekonomik Büyüme	(Önceki Yılın aynı çeyreğine Göre Değişim Oranı %)	(-)

Çizelge 5. Varyans Şişirme Faktörü (VIF) Sonuçları

Table 5. Variance Inflation Factor (VIF) Results

Model	Değişkenler	VIF
	TLCTA	4,78
	FATA	4,64
	CAR	4,34
	LOGTA	4,21
	TATBS	3,61
	NPL	2,75
Model 1 (NFM)	TETA	2,34
	LATA	1,83
	FDGTA	1,83
	NIEOE	1,62
	TLDTA	1,60
	ROE	1,21
	Mean VIF	3,09

Çalışma amacı doğrultusunda net faiz marjının belirleyicileri Demirgüç-Kunt ve Huizinga (1999), Demirgüç-Kunt ve Huizinga (2000) baz alınarak Model 1'de yer alan eşitlik ile tahmin edilmiştir.

$$NFM_{i,t} = f(Banka_{i,t}, Makro_t) + \varepsilon_{i,t}$$
⁽¹⁾

Çalışmanın ilk aşamasında bağımsız değişkenlerin birbirleriyle ilişkili olup olmadığını tespit etmek amacıyla çoklu doğrusal bağlantı sorunu araştırılmıştır. Bağımsız değişkenlerin birbirlerini etkilemesi anlamına gelen ortak bir etkinin varlığını sınamak için Varyans Şişirme Faktörü (VIF) analizi yapılmış ve sonuçları Çizelge 5'te raporlanmıştır.

Varyans Şişirme Faktörü'ne göre hesaplanan kritik değerin 10'dan büyük olması çoklu doğrusal bağlantı sorununa işaret etmektedir. Çizelge 6'da yer alan sonuçlar incelendiğinde, modelde yer alan değişkenlerin hesaplanan VIF değerlerinin 10'dan büyük olmadığı tespit edilmiş olup tahmini gerçekleştirilecek modelde çoklu doğrusal bağıntı probleminin olmadığını söylemek mümkündür.

Yatay Kesit Bağımlılığının Test Edilmesi

Panel veri modeli analizlerinde seriye belli bir şok geldiğinde panel veriyi oluşturan tüm yatay kesit birimlerinin ilgili şoktan aynı seviyede etkilenip etkilenmediğinin belirlenmesi gerekmektedir. Yatay kesit bağımlılığı testleri, panel birimlerine (ülke, firma, banka, vb.,) gelen bir şoktan tüm birimlerin aynı düzeyde etkilenip etkilenmediğini veya yatay kesit biriminden ortaya çıkan şokun diğer panel birimlerini etkileyip etkilemediğinin test edilmesinde başvurulan testlerdir (Ün, 2015, s. 88). Panel birimlerinin hata terimlerinde birimler arası korelasyon bulunuyorsa, birinci nesil eşbütünleşme testleri ve tahmin yöntemleri bu korelasyonu göz ardı ettikleri için zayıf kalmaktadır.

Ampirik çalışmalarda yapılacak durağanlık analizi ve eşbütünleşme testlerinin seçiminde yatay kesit bağımlılığı test sonucuna göre karar verilmesi gerekmektedir. Yatay kesit bağımlılığının sınanmasında panelin zaman boyutu ve yatay kesit boyutuna göre karar verilmektedir. Panelin zaman boyutu T'nin büyük ve yatay kesit boyutunun N'nin küçük olduğu durum (T>N) için Breusch ve Pagan (1980) LM testi; yatay kesit boyutu N'nin büyük olduğu durumda (N>T, T>N) uygun olan Pesaran (2004) CD testi kullanılmaktadır (Tatoğlu, 2017, s. 237). Burada bahsedilen Breusch ve Pagan (1980) LM testi ve Pesaran (2004) CD testleri, grup ortalaması sıfır fakat bireysel ortalama sıfırdan farklı olduğu durumlarda sapmalı sonuçlar üretebilmektedir. Pesaran, Ullah ve Yamagata (2008), geliştirdikleri test istatistiğine varyansı ve ortalamayı da ekleyerek bu sapmayı düzeltmislerdir (Altıntaş ve Mercan, 2015, s. 359).

Pesaran, Ullah ve Yamagata (2008), Breusch ve Pagan (1980) LM testini N ile T'nin büyük olduğu durum için uyarlamışlardır. CD_{LM} testi,

$$CD_{LM} = \sqrt{\frac{1}{N(N-1)}} \sum_{i=1}^{N-1} \sum_{j=i+1}^{N} (T\hat{\rho}_{ij}^2 - 1)$$
(2)

Şeklinde hesaplanmaktadır. Yukarıdaki eşitlikte temel hipotezi altında sırasıyla, T ardından N sonsuza giderken N(0,1) varsayılmaktadır. CD_{LM} test istatistiğinin ortalaması, tüm T ve N'ler için tam olarak sıfır bulunmuştur. N'deki artış hem testin gücünü azaltmakta hem de test istatistiğinin varyansı küçük örnek sapmasına sahip olmasına neden olmaktadır (Tatoğlu, 2017, s. 244-245). Pesaran, Ullah ve Yamagata (2008) ortalama-varyans sapması düzeltilmiş LM_{adj} testini aşağıdaki gibi formüle etmişlerdir (Pesaran vd., 2008, s. 108).

$$LM_{adj} = \sqrt{\frac{2}{n(n-1)}} \sum_{i=1}^{N-1} \sum_{j=i+1}^{N} \frac{(T-k)\hat{\rho}_{i,j}^2 - \mu_{Tij}}{V_{Tij}} \square N(0,1)$$
(3)

Eşitlik (3)'te yer alan μ_{Tij} ortalamayı gösterirken, V_{Tij} varyansı temsil etmektedir.

Çalışmanın panel veri setinin yatay kesitlerini Türk Bankacılık Sisteminde faaliyet gösteren ticari bankalar oluşturmaktadır. Söz konusu ticari bankaların aynı ülkede ve aynı ekonomik koşullar altında faaliyet göstermesi ve ortaya çıkan şoklardan her bankanın belirli ölçülerde etkilenme ihtimalini beraberinde getirmektedir. Bu kapsamda ticari bankaları etkileyen ortak şokların varlığının göz ardı edilmemesi gerektiğinden panel veri modellerinde yatay kesit bağımlılığını test etmek için Pesaran, Ullah ve Yamagata (2008) sapması düzeltilmiş LM_{adi} testi kullanılmıştır.

Yapılan bu çalışmada, yatay kesit boyutu 15 banka, zaman boyutu 78 çeyrek dönem olduğundan yatay kesit bağımlılığı Pesaran, Ullah ve Yamagata (2008) sapması düzeltilmiş LM_{adj} testi ile sınanmış ve Çizelge 6'daki test sonuçları elde edilmiştir.

Tuble 6. Horizontal Cross-Section Dependence Test Results			
Değişkenler	LM _{adj} Testi-(PUY, 2008)	Prob.	Sonuç
NFM	31,365	0,000	H ₀ RED
ROE	19,637	0,000	H ₀ RED
LOGTA	45,643	0,000	H ₀ RED
TATBS	70,124	0,000	H ₀ RED
TLCTA	23,359	0,000	H ₀ RED
TLDTA	23,270	0,000	H ₀ RED
LATA	23,452	0,000	H ₀ RED
NPL	17,767	0,000	H ₀ RED
FATA	44,750	0,000	H ₀ RED
TETA	11,513	0,000	H ₀ RED
CAR	11,338	0,000	H ₀ RED
NIEOE	11,474	0,000	H ₀ RED
FDGTA	7,618	0,000	H ₀ RED
Eş Bütünleşme Denklemi (Model)	464,4	0,000	$H_0 RED$

Çizelge 6. Yatay Kesit Bağımlılığı Test Sonuçları Tahle 6. Harizontal Cross-Section Dependence Test Results

Çizelgede yer alan PUY (2008) LM_{adi} testi sonuçları incelendiğinde hem değişken bazında hem de tahmini gerceklestirilen model bazında hesaplanan değerlerin kritik değer olan 0,05'ten küçük olması sonucunda "Ho: Yatay kesit bağımlılığı yoktur." sıfır hipotezi reddedilmistir. PUY (2008) LM_{adi} testi hem serilerde hem de eşbütünleşme denkleminde yatay kesit bağımlılığının geçerli olduğu sonucunu işaret etmektedir. Yatay kesit bağımlılığının tespit edilmesi durumunda, çalışmanın ilerleyen aşamalarında yatay kesit bağımlılığını dikkate alan ikinci kuşak tahmin yöntemlerinin kullanılması gerekmektedir. Yatay kesit bağımlılığı test sonucuna göre serilerin durağanlık düzeyinin belirlenmesinde ikinci nesil panel birim kök testleri kullanılmıştır.

Panel Birim Kök Testi

Durağanlık kavramı, bir serinin zaman icerisinde belli bir değere yaklaşması, başka bir ifadeyle ortalaması, varyansı ve otokovaryansının sabit olması şeklinde ifade edilebilmektedir. Durağan bir yapıya sahip serinin değerinin uzun dönemde bir değere yaklaşması ya da beklenen değer etrafında dalgalanması beklenmektedir (Tatoğlu, 2017, s. 3). Panel birim kök testleri, panel verilerin birim boyutunun yanı sıra zaman boyutunun da olması veriyi yaratan sürecin belirlenebilmesi düzeyini belirlemek yani serinin durağanlık için geliştirilmişlerdir. Panel veri serilerinde birimler arasında korelasyon bulunması halinde testlerin asimtotik özellikleri etkilenebilecektir. Bu sebeple, birimler arası korelasyonu yani vatav kesit bağımlılığını dikkate alan farklı birim kök testleri geliştirilmiştir (Şak, 2018, s. 261-262).

Uygulanan PUY (2008) LM_{adi} testi sonuçlarına göre değişkenler arasında yatay kesit bağımlılığı tespit edilmiştir. Bu durumda değişkenlerin durağanlık seviyelerini belirleyebilmek için ikinci nesil panel birim kök testlerinin kullanılacaktır. Calışmada serilerin durağanlık seviyesini belirlemede Hadri ve Kurozumi (2012) panel birim kök testinden faydalanılmıştır. Hadri ve Kurozumi tarafından geliştirilen panel birim kök testi, yatay kesit bağımlılığına izin veren ve seriyi oluşturan ortak faktörlerden kaynaklanan birim kökü de dikkate alan ve ortak faktörlerin varlığına izin veren birim kök testidir. Hadri ve Kurozumi tarafından geliştirilen bu test, Pesaran (2007)'den hareketle panel veri gruplarında durağanlığın araştırılması için

 Z_A^{SPC} ve Z_A^{LA} olmak üzere iki test istatistiği hesaplamaktadır. Hadri ve Kurozumi (2012) tahmin panel birim kök modeli Esitlik (4)'te yer aldığı gibidir (Hadri ve Kurozumi, 2012, s. 31-32):

$$y_{it} = z_t' \delta_i + f_t \gamma_i + \varepsilon_{it}, \quad \varepsilon_{it} = \phi_{i1} \varepsilon_{it-1} + \dots + \phi_{ip} \varepsilon_{it-p} + v_{it}$$
(4)

Eşitlikte i=1,...,N ve t=1,...,T olup; zt deterministik bileşeni temsil etmektedir. Deterministik bileşen zt'nin literatürde

yaygın kullanımı
$$z_t = z_t^u = 1$$
 veya $z_t = [1, t]'$ şeklindedir.

Hadri ve Kurozumi (2012) panel birim kök testinde hipotezler aşağıdaki gibidir (Hadri ve Kurozumi, 2012, s. 32): - - I

$$H'_0: \phi_i(1) \neq 0 \quad \forall i \ i \ c in$$
, seride birim kök yoktur.

$$H'_1: \phi_i(1) = 0$$
 bazi i'ler için , seri birim köklüdür.

$$\phi_i(L) = 1 - \phi_{i1}L - \dots - \phi_{ip}L^P$$
'dir. Hadri v

Burada Kurozumi (2012) panel birim kök testinde sıfır hipotezi seride birim kökün yokluğunu gösterirken, alternatif hipotez seride birim kökün varlığını göstermektedir. Her i birimi için yatay

kesit bağımlılık problemini düzeltmek için

$$w_t = [z'_t, \overline{y}_t, \overline{y}_{t-1}, ..., \overline{y}_{t-p}]$$
 vektörü üzerine regres

edilmektedir. Tüm birimler icin bu islem avrı avrı yapılmakta ve Hadri (2000)'deki gibi bir hesaplama ile Z_A test istatistiği elde edilmektedir.

$$Z_{A} = \frac{\sqrt{N}(\overline{ST} - \xi)}{\zeta},$$
(5)

Eşitlik (5)'te yer alan

$$\overline{ST} = \frac{1}{N} \sum_{i=1}^{N} ST_i, \quad ST_i = \frac{1}{\hat{\sigma}_i^2 T^2} \sum_{t=1}^{T} (S_{it}^W)^2 \quad ve \quad S_{it}^W = \sum_{s=1}^{t} \hat{\varepsilon}_i$$

$$\hat{\sigma}_i^2$$

olup, i ise uzun dönem varyans tahmincisini göstermektedir.

Hadri ve Kurozumi (2012), test yapısını Sul, Phillips ve Choi (2005) tarafından önerilen yöntem ile yeniden en küçük kareler vöntemiyle her bir i icin y_t 'nin gecikmeli değerleri ile genişletilen aşağıdaki $^{AR(
ho)}$ modeli tahmin edilmiştir. $y_{it} = z_{t}'\hat{\delta}_{i} + \hat{\phi}_{i1}y_{it-1} + \dots + \hat{\phi}_{ip}y_{it-p} + \hat{\psi}_{i0}\overline{y}_{t} + \dots + \hat{\psi}_{ip}\overline{y}_{t-p} + \hat{v}_{it},$ (6)

Eşitlik (6)'nın uzun dönemli varyans tahmincisi aşağıdaki gibidir:

$$\hat{\sigma}_{iSPC}^{2} = \frac{\hat{\sigma}_{vi}^{2}}{(1 - \hat{\phi}_{i})^{2}}$$

$$\hat{\phi}_{i} = \min\left\{1 - \frac{1}{\sqrt{T}}, \sum_{j=1}^{p} \hat{\phi}_{ij}\right\}$$
(7)
Burada

$$\hat{\sigma}_{vi}^{2} = \frac{1}{T} \sum_{t=1}^{T} \hat{v}_{it}^{2}$$
'dir. Önerilen test istatistiği aşağıdaki gibidir:
$$ST_{i}^{SPC} = \frac{1}{\hat{\sigma}_{iSPC}^{2}T^{2}} \sum_{t=1}^{T} (S_{it}^{w})^{2}$$
(8)

Eşitlik (8) Z_A^{a} olarak adlandırılmaktadır.

Hadri ve Kurozumi (2012) tarafından önerilen diğer yöntem ise Choi (1993) ve Toda ve Yamamoto (1995) gecikmesi ile genişletilmiş yöntemlerine dayanmaktadır. Bu yöntemde yı'nin bir gecikmesi modele dahil edilerek ${}^{AR(
ho)}$ modeli verine $AR(\rho+1)$ modeli tahmin edilir:

$$y_{ii} = z'_i \tilde{\delta}_i + \tilde{\phi}_{i1} y_{ii-1} + \dots + \tilde{\phi}_{ip} y_{ii-p} + \tilde{\phi}_{ip} + y_{ii-p-1} + \tilde{\psi}_{i0} \overline{y}_i + \dots + \tilde{\psi}_{ip} \overline{y}_{i-p} + \tilde{v}_{ii},$$
(9)

Eşitlik (9)'dan hareketle aşağıdaki test istatistiği formüle edilmiştir:

$$ST_{i}^{LA} = \frac{1}{\hat{\sigma}_{iLA}^{2}T^{2}} \sum_{t=1}^{I} (S_{it}^{w})^{2}$$
(10)

Eşitlik (10)'un uzun dönem varyansı aşağıdaki gibidir:

$$\hat{\sigma}_{iLA}^2 = \frac{\hat{\sigma}_{vi}^2}{\left(1 - \tilde{\phi}_{i1} - \dots - \tilde{\phi}_{ip}\right)^2}$$
(11)

ve

Eşitlik (10) Z_A^{LA} olarak adlandırılmakta ve Z_A^{SPC} ve Z_A^{LA} test istatistikleri asimtotik olarak standart normal dağılıma uygunluk göstermektedir (Hadri ve Kurozumi, 2012, s. 32).

Çalışmada 15 bankanın 2003-2022 dönemine ait serilerine Hadri ve Kurozumi (2012) panel birim kök testi uygulanmış ve elde edilen sonuçlar Çizelge 7'de sunulmuştur. Ayrıca çalışmada Hadri ve Kurozumi (2012) panel birim kök testi sonuçlarını desteklemek için banka serilerine Pesaran CADF testi uygulanmış ve sonuçları Çizelge 7'de paylaşılmıştır. Çizelge 7'de yer alan Hadri ve Kurozumi (2012) panel birim kök testi sonuçlarına bakıldığında, Z_A^{SPC} ve Z_A^{LA} test istatistiklerini göre tüm değişkenlerin düzey değerlerinde durağan oldukları görülmektedir. Ayrıca Pesaran CADF test sonuçlarına göre hem t-bar (CIPS) istatistiği (cv10), (cv5) ve (cv1) güven düzeyinde verilen kritik değerlerden mutlak değerce büyük olduğu hem de Z[t-bar] istatistiğinin olasılık değerleri dikkate alındığında durağan olduğu sonucu tespit edilmiştir. Çalışmada serilere uygulanan iki panel birim kök testi sonuçları tutarlı çıkmış ve serilerin düzey değerlerinde durağan olduğuna karar verilmiştir.

Panel birim kök testleri neticesinde düzey değerlerinde durağan oldukları tespit edilen değişkenler arasındaki ilişkiyi model kapsamında tahmin etmek için panel regresyon analiz yöntemleri kullanılmıştır. Çalışmada doğru panel regresyon yöntemini belirlemek için öncelikle verinin birimlere göre farklılık gösterip göstermediğini test etmek için F testi yapılmıştır.

Çizelge 7. Hadri ve Kurozumi (2012) Panel Birim Kök Testi Sonuçları Table 7. Hadri and Kurozumi (2012) Panel Unit Root Test Results

	Hadri ve Kur	ozumi (2012)		CADF	
Değişkenler	Z_A^{SPC}	$Z_A^{L\!A}$	t-bar	Z[t-bar]	Olasılık
NFM	-1,2868[0,9009]	-0,3847[0,6498]	-4,116	-9,942	0,000
ROE	0,7184[0,2363]	2,0460[0,2004]	-2,619	-3,572	0,000
LOGTA	-1,0883[0,8618]	-1,6438[0,9499]	-2,991	-5,154	0,000
TATBS	-2,0270[0,2130]	-0,3337[0,6370]	-3,447	-7,095	0,000
TLCTA	-2,7526[0,3030]	-0,2238[0,5885]	-2,685	-3,850	0,000
TLDTA	-0,9049[0,8172]	-3,0483[0,9988]	-3,103	-5,631	0,000
LATA	-2,0849[0,9815]	-1,7353[0,9587]	-2,542	-2,862	0,000
NPL	-2,7785[0,2772]	-2,6772[0,3778]	-3,484	-7,253	0,000
FATA	-1,978[0,2440]	-2,8920[0,9800]	-2,542	-2,978	0,000
TETA	0,5653[0,2859]	0,3660[0,6485]	-2,659	-3,742	0,000
CAR	2,1706[0,1510]	0,4607[0,3225]	-3,425	-7,000	0,000
NIEOE	-0,3128[0,6228]	1,2082[0,1135]	-3,101	-5,624	0,000
FDGTA	0,0502[0,4800]	2,1477[0,1590]	-3,163	-5,886	0,000

Not: Çizelgedeki köşeli parantez içindeki değerler test istatistiklerinin olasılık değerlerini göstermektedir. Pesaran CADF testi için %90 (cv10), %95 (cv5) ve %99 (cv1) güven düzeyleri sırasıyla -2,150, -2,250 ve -2,420'dir.

Çizelge 8. Panel Veri Model Varsayımlarının Testleri

Table 8. Testing of Panel Data Model Assumptions

Panel A: Birim ve/veya Zaman Etkiler Testi							
Model I	Test İstatistiği	Olasılık Değeri					
F Testi	45,43	0,000					
Panel B: Hau	sman Testi						
Model I	Test İstatistiği	Olasılık Değeri					
Hausman Testi	30,49	0,000					
Panel C: Değişer	Varyans Testi						
Model I	Test İstatistiği	Olasılık Değeri					
Değiştirilmiş Wald Testi	379,44	0,000					
Panel D: Otoko	relasyon Testi						
Model I	Test İstatistiği	Olasılık Değeri					
Modifi ed Bhargava et al. D-W	1,572	< 2					
Baltagi-Wu LBI	1,592	< 2					
Panel E: Birimler Arası Korelasyon Testi							
Model I	Test İstatistiği	Olasılık Değeri					
Pesaran CD	51,776	0,000					

Çizelge 8, Panel A'da yer alan F testi sonuçlarına göre H₀ hipotezi reddedilmiş ve birim etkilerin var olduğu, klasik modelin uygun olmadığı sonucuna karar verilmiştir. Panel veri modellerinde tahminciler arasında seçim yapmak için Hausman (1978) pesifikasyon testinden faydalanılmıştır.

Çizelge 8, Panel B'de yer alan Hausman testi sonuçlarına göre H₀ hipotezi reddedilmiş ve sabit etkiler tahmincisinin rassal etkiler tahmincisine kıyasla daha etkin olduğuna karar verilmiştir. Panel veri analizinde tahminci belirlendikten sonra panel veri tahmincisinde değişen varyans, otokorelasyon ve birimler arası korelasyon problemlerinin bulunup bulunmadığının sınanması gerekmektedir. Bu kapsamda çalışmada sabit etkiler panel veri modelinde değişen varyans sorunu olup olmadığını belirlemek için Değiştirilmiş Wald Testi yapılmıştır.

Çizelge 8, Panel C'de tahmin edilen Wald testi sonuçlarına göre H_0 hipotezi reddedilmiş ve varyansın birimlere göre değiştiği sonucuna ulaşılmıştır.

Çizelge 8, Panel D'de yer alan sonuçlara göre sabit etkiler modelinde otokorelasyonun varlığı sınanmış ve her iki test içinde değerler 2'den küçük olduğundan sabit etkiler modeli için otokorelasyon problemine sahip olduğuna karar verilmiştir. Son olarak panel veri modellerinde hata terimlerinin birimlere göre bağımsızlığı Pesaran CD testi ile sınanmıştır.

Çizelge 8, Panel E'de yer alan Pesaran CD sonuçlarına göre birimler arası korelasyonsuzluğu işaret eden H₀ hipotezi reddedilmiş ve birimler arası korelasyon (yatay kesit bağımlılığı) bulunduğu tespit edilmiştir.

Çalışmada panel veri model varsayımlarının sınanması sonucunda sabit etkiler modelinde değişen varyans, otokorelasyon ve yatay kesit bağımlılığı bulunduğu sonucuna ulaşılmıştır. Söz konusu problemlerin varlığında sabit etkiler tahminci sapmalı sonuçlar üreteceğinden tahmini gerçekleştirilen modeldeki değişkenlere ait parametre tahminleri Driscoll ve Kraay (1998) dirençli tahminci ile yapılmıştır.

Çizelgede yer alan Driscoll ve Kraay (1998) tahmincisi sonuçlarına göre modelde kullanılan bağımsız değişkenlerin bağımlı değişkendeki değişimleri açıklayabilme gücünü gösteren R2 değeri %61,54'tür. Tahmini gerçekleştirilen modelin anlamlılığının sınandığı F testi sonucuna göre kurulan modelin anlamlı çıktığı görülmektedir.

Değişen varyans, otokorelasyon ve birimler arası korelasyon bulunduğunda dirençli standart hatalar ile hesaplanan t istatistiklerine göre, net faiz marjı (NFM) ile özkaynak kârlılığı (ROE), kredi oranı (TLCTA), sermaye yeterliliği (CAR), faiz gelirleri oranı (NIEOE), faiz dışı gelirleri oranı (FDGTA), TL mevduat faiz oranı (TRDIR) ve döviz kuru (USDEX) arasında anlamlılık düzeyinde ve pozitif yönlü bir ilişki bulunmaktadır.

Yine Çizelgede raporlanan Driscoll ve Kraay tahmin sonuçlarına göre toplam varlıklar (LOGTA), kredi riski (NPL), finansal varlık oranı (FATA), TL kredi faizi (TRCIR), enflasyon (TÜFE) ve ekonomik büyüme (GSYH) değişkenleri net faiz marjını (NFM) istatiksel olarak anlamlılık düzeyinde ve negatif yönlü etkilemektedir.

Ayrıca dirençli standart hatalar ile hesaplanan t istatistiklerine göre, piyasa gücü (TATBS), mevduat oranı (TLDTA), likidite riski (LATA) ve özkaynak yapısı (TETA) değişkenlerini net faiz marjı (NFM) üzerindeki etkisini istatistiksel olarak anlamlılık seviyesinde olmadığı sonucuna ulaşılmıştır.

Bağımlı Değişken:		NFM		
Metot:		Panel Sabit Etkiler Tahmincisi		
Periyot:		2003-2022		
Kesit (Banka) Sayısı:		15		
Toplam Gözlem:		1170		
F-Testi:		103,74		
Prob.>F		0,000		
R ² :		0,6154		
NFM(Model 1)	Katsayı	Driscoll-Kraay/Standart Hata	t-istatistiği	Prob.
	B	ağımsız Değişkenler		
ROE	0,0083853*	0,0024274	3,45	0,001
LOGTA	-0,2716471***	0,1532623	-1,77	0,080
TATBS	1,864304	3,226084	0,58	0,565
TLCTA	0,0172252*	0,0071001	2,43	0,015
TLDTA	0,0007286	0,0056925	0,13	0,898
LATA	0,006526	0,0090171	0,72	0,471
NPL	-0,0290529 [*]	0,0102058	-2,85	0,006
FATA	-0,0093941***	0,0053771	-1,75	0,081
TETA	-0,0025255	0,0155979	-0,16	0,872
CAR	0,0409436*	0,0100181	4,09	0,000
NIEOE	0,0440074*	0,0052131	8,44	0,000
FDGTA	0,5855686*	0,2050706	2,86	0,006
TRCIR	-0,0475723 [*]	0,0160609	-2,96	0,003
TRDIR	0,0388247**	0,0171223	2,27	0,024
USDEX	0,1194102*	0,0320091	3,73	0,000
TÜFE	-0,0213531 [*]	0,0062663	-3,41	0,001
GSYH	-0,0242566*	0,0057543	-4,22	0,000

Çizelge 9. Driscoll-Kraay Panel Regresyon Tahmin Sonuçları Table 9. Driscoll-Kraay Panel Regression Estimation Results

*, ** ve ***, sırasıyla %1, %5 ve %10 düzeylerinde istatistiksel anlamlılığı ifade etmektedir.

Çizelge 10. Elde Edilen Sonuçların Literatür ile Karşılaştırması Table 10. Comparison of Obtained Results with Literature

Kad	Dežislar	Tanım –		NFM Üzerine Etkisi	
Kod	Değişken		Beklenti	Bulgu	
		Bağımlı Değişken			
NFM	Net Faiz Marjı	(Net Faiz Geliri (Faiz Gelirleri-Faiz Gid,erleri) / Toplam Varlıklar)			
		Bankalara Özgü Bağımsız Değişkenler			
ROE	Net Özkaynak Kârlılığı	(Vergi Sonrası Net Kâr/Toplam Özkaynaklar)	(+)	(+)	
LOGTA	Toplam Varlıklar	Toplam Varlıklar (Toplam Aktiflerin Doğal Logaritması)	(+) (-)	(-)	
TATBS	Piyasa Gücü	Toplam Varlıklar/Bankacılık Sektörü Toplam Varlıklar	(+)	Belirsiz	
TLCTA	Kredi Oranı	Toplam Krediler /Toplam Varlıklar	(+)	(+)	
TLDTA	Mevduat Oranı	Toplam Mevduat/Toplam Varlıklar	(-)	Belirsiz	
LATA	Likidite Riski	Likit Varlıklar/Toplam Varlıklar	(-)	Belirsiz	
NPL	Kredi Riski	Tahsili Gecikmiş Alacaklar (Brüt)/Toplam Kredi ve Alac.	(-)	(-)	
FATA	Finansal Varlık Oranı	Finansal Varlıklar (Net) / Toplam Varlıklar	(-)	(-)	
TETA	Özkaynak Yapısı	Toplam Özkaynak/Toplam Varlıklar	(+)	Belirsiz	
CAR	Sermaye Yeterliği	Toplam Özkaynak/Risk Ağırlıklı Varlıklar	(+)	(+)	
NIEOE	Faiz Gelirleri Oranı	Özel Karşılıklar Sonrası Net Faiz Gel/Top.Faal. Gel (Gid)	(+)	(+)	
FDGTA	Faiz Dışı Gelirleri Oranı	Faiz Dışı Gelirler (net) / Toplam Varlıklar	(+) (-)	(+)	
		Makroekonomik Bağımsız Değişkenler			
TRCIR	TL Kredi Faizi	Bankalarca Açılan Ticari Kredilere Uygulanan Ağırlıklı Ort. Faiz Oranları (TL %)	(+) (-)	(-)	
TRDIR	TL Mevduat Faizi	Bankalarca Mevduatlara Uygulanan Ağırlıklı Ort. Faiz Oranları (TL %)	(+) (-)	(+)	
USDEX	Döviz Kuru	ABD Döviz Satış Kuru	(+)	(+)	
TÜFE	Enflasyon	Ort.Yıllık Enflasyon - (TÜFE 2003=100) Yıllık % Değişim	(+)	(-)	
GSYH	Ekonomik Büyüme	(Önceki Yılın aynı çeyreğine Göre Değişim Oranı %)	(-)	(-)	

Sonuç

Bankalar ekonomik ve finansal gelişme yönünden ülkelerin en önemli finansal kurumlarından olup, fon birikiminin kaynak ihtiyacı olan kurum ve kişilere aktarılması yoluyla finansman sağlanması, ekonomik yapının, iç ve dış ticaretin ve finansal sistemin gelişmesi amacıyla faaliyet gösteren en önemli finansal kurumlardır. Bu nedenle bankaların finansal sağlamlığı ekonomik gelişme ve finansal istikrarın sürdürülmesi açısından önemlidir. Bankaların finansal yapılarının sağlamlığının en önemli belirlevicilerinden biri ise net faiz marjıdır. Ticari bankalarının faiz marjı, bankaya özgü ve dış (makroekonomik) faktörlerden etkilenmektedir. Bu çalışmada kullanılan bankaya özgü tüm içsel faktörler, faiz marjı üzerinde farklı önem düzeyinde etkiye sahiptir.

Aşağıda Çizelge 10'da elde edilen sonuçlar, literatürdeki teorik beklenti ile karşılaştırmalı olarak belirtilmiştir.

Çalışmadan elde edilen sonuçlara göre; banka net faiz marjı ile özkaynak kârlılığı, kredi oranı, sermaye yeterliliği, faiz gelirleri oranı, faiz dışı gelirleri oranı, TL mevduat faiz oranı ve döviz kuru arasında anlamlılık düzeyinde ve pozitif yönlü bir ilişki bulunmaktadır.

Bankaların kârları büyük ölçüde kredilerden elde edilen faiz gelirlerinden oluştuğundan NFM ile özkaynak kârlılığı arasında pozitif yönlü güçlü bir ilişki belirlenmiştir. Kredi kullandırımının yüksek olması, özellikle de kredi büyümesinin mevduat büyümesinden daha hızlı olması, kredilerden elde edilen faiz gelirinin mevduata ödenecek faiz giderinden fazla olması bankanın net faiz gelirinde artışa neden olmaktadır.

Bankalar gerek faaliyetlerini genişletmek ve gerekse olumsuz koşullarda kayıp riskini azaltmak amacıyla sermayesini yüksek tutmayı amaçlayacağından, bu durum sermaye maliyetini artıracağından sermaye yeterlilik rasyosunun faiz marjı üzerinde pozitif etkisi vardır. Bankaların en büyük ve en önemli gelir kaynakları faiz olduğundan, NFM'nı gelirleri olumlu vönde etkilemektedir. Bankalar artan sermaye maliyetini karşılamak amacıyla faiz marjını yükseltmeyi tercih edebilir. Bu sonuç, Demirgüç-Kunt ve Huizinga (2000) tarafından yapılan araştırmanın sonuçlarıyla tutarlıdır. Bankacılık hizmetlerinden elde edilen gelirlerin (faiz dışı gelirler), geleneksel segmentlerdeki (mevduat/krediler) daha güçlü rekabetten kaynaklanan düşük NFM'larını telafi edebileceğinden faiz dışı gelirler ile NFM arasında pozitif bir ilişki bulunmaktadır. Döviz kurları ile NFM arasındaki ilişki ise bankanın kaynak bileşimi, açık pozisyon tutarı ve piyasa volatilitesine bağlı olarak doğrusal yönde oluşacaktır.

- Ampirik sonuçlarımız; toplam varlık büyüklüğü, kredi riski, finansal varlık oranı, TL kredi faizi, enflasyon ve ekonomik büyüme değişkenlerinin net faiz marjını istatiksel olarak anlamlılık düzeyinde ve negatif yönlü etkilemekte olduğunu göstermektedir.

Bankaların toplam varlık büyüklüğü ile NFM arasındaki negatif yönlü ilişki büyük bankaların ölçeğe göre azalan getiriye sahip olması nedeniyle daha düşük faiz marjına sahip olabileceği şeklinde açıklanabilir. Tin ve ark. (2011) ve Ben Naceur ve Goaeid (2003)'de bankanın büyüklüğü

ile faiz marjı arasında negatif bir ilişki belirlemişlerdir. Diğer yandan, bankanın aktif büyümesinin banka kredisi miktarındaki artıştan kaynaklanması durumunda banka varlıklarının büyümesi bankanın faiz marjını artıracaktır. kredi genişlemesinin iyi yönetilememesi Ancak durumunda toplam krediler içerisinde sorunlu kredilerin payı artacak, dolayısıyla NFM düşecektir. Demirgüç-Kunt ve Huizinga (2000) sorunlu kredileri artan bankaların potansiyel zararlarını karşılamak için yüksek miktarda karşılık ayıracaklarından bu yapıdaki bankaların NFM'nı artırmaya teşvik edeceğinden banka büyüklüğünün NFM üzerinde pozitif bir etkiye sahip olabileceğini belirtmektedir. Bankalarda tahsili gecikmiş alacaklar bankaların faiz gelirlerini düşürdüğünden takipteki krediler NFM'nı olumsuz yönde etkilemektedir. Banka bilançolarında önemli ölçüde diğer para birimleri cinsinden varlık ve yükümlülükler bulunduğundan, bu diğer para birimlerindeki faiz oranları da net faiz marjlarını etkileyebilir. Yabancı para faiz oranlarının artması, yerel para birimi cinsinden faiz oranlarının etkilerini azaltacaktır. Finansal varlıkların piyasa faiz oranlarındaki dalgalanmalardan daha fazla ve eş zamanlı etkilenmesi, banka toplam varlıkları içerisinde finansal varlık portföyünün büyüklüğüne bağlı olarak NFM'nı olumsuz yönde etkileyebilir. Enflasyonun, NFM'nı negatif yönlü etkilemesinin nedeni, yüksek enflasyon oranındaki artışın, kredi borçlularının ödeme kabiliyetlerini düşürmesi sonucu takipteki kredilerin artması ve faiz gelirlerindeki azalmadan kaynaklanmaktadır. Reel GSMH büyümesinin bankaların net faiz marjları üzerinde istatistiksel olarak negatif bir etkisinin olduğu anlaşılmaktadır. Bu bulgu, ekonomik durgunluk dönemlerinde kredi kullanan kişilerin kredi borçlarını ödememeleri sonucu banka özkaynaklarının azalması, daha yüksek beklenen kredi riskini yansıtacak şekilde kredi faiz oranlarının artması ve ekonomik büyüme dönemlerinde artan kredi arzı nedeniyle faiz oranlarının gerilemesinden dolayı; reel GSYH büyümesinin bankaların faiz marjları üzerinde olumsuz bir etkisi olabilir.

- Çalışmada ayrıca, piyasa gücü, mevduat oranı, likidite riski ve özkaynak yapısı değişkenlerinin net faiz marjı üzerindeki etkisinin istatistiksel olarak anlamlılık seviyesinde olmadığı sonucuna ulaşılmıştır.

Bu bulgu, bankaların içsel risklerini yeterince fiyatlandırmadığını, kaynak verimliliğinin düşük olduğunu göstermektedir. Günümüzde fiyat dışı etkenlerin bankacılık rekabeti için giderek daha önemli hale gelmesi nedeniyle bankacılık sektörünün rekabet gücü ile NFM arasında anlamlı bir ilişki görülmemektedir. Bu durum rekabet gücü ile NFM arasında düşük derecede bir korelasyon olduğunu gösteren önceki ampirik çalışmalarla da uyumludur;

Son yıllarda dünya finans sisteminde istikrarsızlıklar görülmekte, en gelişmiş ekonomilerden biri olan Amerika'da banka iflasları yaşanmaktadır. Ekonomiler açısından son derece önemli olan bankacılık ve finansal kurumların etkin ve verimli çalışması finansal sistemin sağlıklı bir şekilde yapılanmasının da ön koşuludur. Bu nedenle, finansal piyasalarda ve kurumlarda finansal sağlamlık göstergelerinin yakından takip edilmesi gerekmektedir. NFM bu süreçte, banka faaliyetlerinin verimliliğinin izlenmesi açısından önemli bir gösterge niteliğindedir. Bankalar gerek kredi ve gerekse mevduat yapısı ile kredi ve mevduat portföyünün takibinde, kârlılık, risk odaklı yaklaşım ve doğru fiyatlandırma politikaları ile NFM'larını ve NFM'larındaki değişimi kontrol etmelidirler.

Bankalarda net faiz marjlarının etkisinin araştırıldığı bu çalışmada; iki önemli kısıtımız bulunmaktadır. Öncelikle banka varlık ve kaynaklarının vadeleri, faiz oranları, miktarları gibi bilgilere ulaşılması mümkün olmadığından bankaların arzu edilen faiz marjlarının daha farklı şekilde modellenmesini olanaksız kılmaktadır. NFM'larındaki değişim yukarıda belirtilen değişkenlerin yanı sıra bilançolardaki varlık ve kaynakların tutarı, vade yapısı, ürün türü, döviz cinsi, faiz oranları ile faiz ve döviz kuru değişimlerine olan duyarlılığı gibi faktörlerden de etkilenebilecektir. Bu çalışmadaki ikinci kısıtımız da, makroekonomik şokların, konjonktürel değişikliklerin, sektörel gelişmelerin etkileri ile banka yönetimlerinin stratejilerinin ihmal edilmesidir.

Türk bankacılık sisteminde, banka net faiz marjları banka performansının veya kırılganlık seviyesinin belirlenmesinde önemli bir gösterge olduğundan, NFM gibi önemli bir finansal göstergenin banka finansal yapısına etkisinin, geniş bir dönem, uygun model ve ticari bankalar esas alınarak gerçekleştirilmiş olması bu alandaki literatüre büyük bir katkı sunulmaktadır. Bununla birlikte, bankaların ve denetim otoritelerinin, piyasa faiz oranı riskine ve ekonomik dalgalanmalara karşı etkin bir risk yönetimi politikası geliştirmeleri, araştırmacıların ise sonraki çalışmalarda uygun verinin sağlanabilmesi durumunda diğer değişkenleri de kapsayacak şekilde analizin genişletilmesi uygun olacaktır.

Extended Summary

Banks are the most important financial institutions operating for the purpose of providing financing by transferring the fund accumulation to the institutions and individuals in need of resources, and the development of the economic structure, domestic and foreign trade, and the financial system. It is important for banks to be financially sound, effective, and efficient in terms of economic development and sustaining financial stability. The "Net Interest Margin" (NFM) of banks is accepted as an important indicator in evaluating financial soundness and profitability performance, pricing of loans, measuring the efficiency of bank activities, and understanding the cost of financial intermediation. For this reason, NFM is used as an analysis tool by both bank management and banking authorities and researchers.

The net interest margin is calculated by dividing the bank's total interest income and total interest expenses by the sum of income generating assets. Net interest margin is also used as a reference in both the evaluation of profitability performance and loan pricing in the banking sector. For this reason, "Net Interest Margin (NIM)" is used as an important analysis tool by bank management and banking researchers (Selçuk and Tunay 2014). While the return on assets expresses the difference between the income and expenses of the bank from all assets, the net interest margin shows the profitability obtained from the main activities.

Net interest margin analysis in banks is examined in two ways: traditional (theoretical) and modern (empirical) approaches. In traditional approaches, the effect of the factors determining the bank's net interest margin is made by analyzing the balance sheets of banks, while in modern approaches, the structure of the bank is explained by numerical methods depending on the data.

The most important theoretical studies to explain the net interest margin in banks; It is the "monopoly" or cost function model developed by Klein (1971) and Monti (1972) and the "dealership" model developed by Ho and Saunders (1981).

In the model of Klein (1971) and Monti (1972), the main field of activity of banks is defined as deposit collection and lending. In the model, cost (C) is accepted as a function of deposit (D) and loan (L) (C=f(D,L), there is imperfect competition in deposit and loan markets, banks have monopoly power in determining at least one of the loan or deposit interest rates. Therefore, it is stated that it reflects a bank's ability to charge a higher price than its marginal cost of operating in both the credit and deposit markets.

Ho and Saunders (1981) model is the second prominent theoretical model for explaining net interest margins in banks. According to this view; Since loan demand and deposit supply show an asymmetrical development, different maturities of loans and deposits will force banks to hold long or short positions, which will expose them to interest rate risk as well as a cost factor for banks. Therefore, NFM turns into a dynamic tool that determines loan and deposit interest rates. The bank's optimal net interest margin; is explained as it depends on the market structure, the risk perception of the bank management, the asset and liability structure of the bank, and the degree of competition between banks in fund collection and lending. This model has opened new horizons in the analysis of the determinants of bank (interest) margins and has been the reference for most of the empirical analyzes in this area.

The literature on the determinants of bank interest margins has largely focused on the impact of bank-specific and macroeconomic variables. Especially with the increase in international capital flows, many studies examine the effect of foreign bank inflows on the net interest margins of national banks. Panel data analysis or regression model was used in a significant part of the studies.

The aim of this study is to investigate the net interest margin of the 15 commercial banks with the highest total market power approaching 90% in the Turkish banking system, on the basis of bank-specific variables and macro variables, and to examine the effect of the net interest margin on the financial structure of commercial banks. Banks within the scope of the study are: Akbank, Alternatifbank, Denizbank, Fibabanka, HSBC, ING Bank, QNB Finansbank, Şekerbank, TEB, Turkish Republic Ziraat Bank, Halkbank, Vakifbank, Işbank, Garantibank, Yapı Kredi Bank.

For the purpose of the study, the determinants of the net interest margin were estimated with the equation in Model 1 based on Demirgüç-Kunt and Huizinga (1999), Demirgüç-Kunt and Huizinga (2000).

$$NFM_{i,t} = f(Banka_{i,t}, Makro_t) + \varepsilon_{i,t}$$
⁽¹⁾

In the first stage of the study, the multicollinearity problem was investigated in order to determine whether the independent variables were related to each other. Variance Inflation Factor analysis was performed to test the existence of a common effect, which means that the independent variables affect each other.

In panel data model analysis, when a certain shock hits the series, it is necessary to determine whether all crosssection units that make up the panel data are affected at the same level by the relevant shock. If there is a correlation between the units in the error terms of the panel units, the first generation cointegration tests and estimation methods are weak because they ignore this correlation. The choice of stationarity analysis and cointegration tests to be carried out in empirical studies should be decided according to the cross-sectional dependence test result. In testing the cross-section dependency, the decision is made according to the time dimension and cross-sectional dimension of the panel. Then, panel unit root tests and tests of the tests were carried out.

According to the results of the research, the R2 value, which shows the power of the independent variables used in the model to explain the changes in the dependent variable, is 61.54%. It is seen that the model established according to the result of the F test, in which the significance of the estimated model is tested, is significant. Since there is variance, autocorrelation and correlation between units, according to the t statistics calculated with resistant standard errors, there is a significant and positive relationship between net interest margin (NFM) and return on equity (ROE), loan ratio (TLCTA), capital adequacy (CAR), interest income rate (NIEOE), non-interest income rate (FDGTA), TL deposit interest rate (TRDIR), exchange rate (USDEX). According to the estimation results of Driscoll and Kraay reported in the table, total assets (LOGTA), credit risk (NPL), financial asset ratio (FATA), TL loan interest (TRCIR), inflation and economic growth (GDP) variables have a significant and negative effect on the net interest margin (NFM) statistically. In addition, according to t statistics calculated with resistant standard errors, it was concluded that the effects of market power (TATBS), deposit rate (TLDTA), liquidity risk (LATA), and equity structure (TETA) variables on net interest margin (NFM) were not statistically significant.
Kaynaklar

- Altıntaş, H. ve Mercan, M. (2015). AR-GE Harcamaları ve Ekonomik Büyüme İlişkisi: OECD Ülkeleri Üzerine Yatay Kesit Bağımlılığı Altında Panel Eşbütünleşme Analizi. Ankara Üniversitesi SBF Dergisi, 70(2), 345–376.
- Angbazo, L. (1997). Commercial bank net interest margins, default risk, interest-rate risk, and off-balance sheet banking, Journal of Banking & Finance, XXI, 1, 55-87.
- Amidua, M ve Wolfe, S. (2013). The impact of market power and funding strategy on bank-interest margins, The European Journal of Finance, 2013 Vol. 19, No. 9, 888–908.
- Begenau, J. ve Stafford, E. (2022). Unstable Inference from Banks' Stable Net Interest Margins, https://ssrn.com/ abstract=4136866 or http://dx.doi.org/10.2139/ssrn.4136866.
- BDDK, (2023), Aylık Bülten, https://www.bddk.org.tr/Bulten Aylik /tr/Home/Gelismis
- Breusch, T. S. ve Pagan, A. R. (1980). The Lagrange Multiplier Test and its Applications to Model Specification in Econometrics. The Review of Economic Studies, 47(1), 239–253.
- Brummelhuis, R. ve Luo, Z., (2019). "Bank Net Interest Margin Forecasting and Capital Adequacy Stress Testing by Machine Learning Techniques," MPRA Paper 94779, University Library of Munich, Germany.
- Busch, R. ve Memmel, C., (2015). "Banks' net interest margin and the level of interest rates," Discussion Papers 16/2015, Deutsche Bundesbank.
- Chaudron, R., Haan, L. ve Hoeberichts, M. (2020). "Banks net interest margins and interest rate risk: communicating vessels?," Working Papers 675, DNB.
- Choi, I.N. (1993). Asymptotic normality of the least-squares estimates for higher order auto-regressive integrated processes with some applications. Econometric Theory, 9(2), 263–282.
- Claeys, S., Vennet, R.V. (2007), Determinants of Bank Interest Margins in Central and Eastern Europe: A Comparison with the West, Research Dep.Sveriges Riksbank, SE-103.37.
- Demirgüç-Kunt A. ve Huizinga, H. (1999). Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence. The World Bank Economic Review, 13(2), 379-408. doi:10.1093/wber/13.2.379.
- Demirgüç-Kunt A. ve Huizinga, H. (2000). "Financial Structure and Bank Profitability". World Bank Çalışma Tebliği, No: 2430. doi:10.7551/mitpress/3001.003.0010
- Demirgüç-Kunt, A., Laeven, L. ve Levine, R. (2004). Regulations, Market Structure, Institutions, and the Cost of Financial Intermediation. Journal of Money, Credit, and Banking, XXXVI, 3, 593-622.
- Driscoll, J. C. ve Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. Review of Economics and Statistics, 80(4), 549–559.
- Doliente, J.S. (2005) Determinants of bank net interest margins in southeast asia, Applied Financial Economics Letters, 1:1, 53-57, DOI: 10.1080/1744654042000303629
- Entrop, O., Memmel, C., Ruprecht, B. ve Wilkens, M. (2015) Determinants of Bank Interest Margins: Impact of Maturity Transformation, Journal of Banking and Finance, Vol. 54, p.-19.
- Erol, H. (2007). Bankalarda Net Faiz Marjının Belirleyicileri, Risk Duyarlılığı ve Politika Önerileri, TCMB Bankacılık ve Finansal Kuruluşlar Gen.Müd., Uzmanlık Yeterlilik Tezi,
- Freixas, X. ve Rochet J. C.(1998). Microeconomics of Banking.Cambridge Mass:MIT Press.
- Gunter, U., Krenn, G. ve Sigmund, M. (2013). "Macroeconomic, Market and Bank-Specific Determinants of the Net Interest Margin in Austria," Financial Stability Report, Oesterreichische Nationalbank (Austrian Central Bank), issue 25, pages 87-101.

- Hadri, K. (2000). Testing For Stationarity in Heterogeneous Panel Data. The Econometrics Journal, 3(2), 148–161.
- Hadri, K. ve Kurozumi, E. (2012). A Simple Panel Stationarity Test in The Presence of Serial Correlation and A Common Factor. Economics Letters, 115(1), 31–34.
- Hanweck, G. ve Ryu, L. (2005) The Sensitivity of Bank Net Interest Margins and Profitability to Credit, Interest-Rate, and Termtructure Shocks Across Bank Product Specializations. FDIC Working Paper 2005-02.
- Hausman, J.A.(1978). Specification tests in econometrics. Econometrica, 46(6), 1251–1271.
- Hellmann,T., Murdock,K.C., Stiglitz,J.E. (2000), Liberalization, Moral Hazard in Banking, and Prudential Regulation: Are Capital Requirements Enough?, American Economic Review, 90(1), 147–165.
- Ho, T. S. Y. ve Saunders, A. (1981). The Determinants of Bank Interest Margins: Theory and Empirical Evidence. Journal of Financial and Quantitative Analysis, XVI, 4, 581-600.
- Klein, M., (2020). Implications of Negative Interest Rates For the Net Interest Margin and Lending of Euro Area Banks. Deutsche Bundesbank Discussion Paper No. 10.
- Klein, Michael A. (1971), A Theory of Banking Firm, Journal of Money, Credit and Banking, 3(2), 205–218.
- Kusi, B.A., Agbloyor, E.K., Gyeke-Dako, A. ve Asongu, S.A. (2020). Financial sector transparency and net interest margins: should the private or public sector lead financial sector transparency? Res. Int. Bus. Finance, 54 (2020), Article 101260
- López-Espinosa, Moreno ve Pérez de Gracia (2011). "Banks' Net Interest Margin in the 2000s: A Macro-Accounting international perspective," Journal of International Money and Finance, Elsevier, vol. 30(6), pages 1214-1233.
- Maudos, J. ve Guevara, J.F.D. (2004). "Avrupa Birliği'nin bankacılık sektörlerindeki faiz marjını açıklayan faktörler" Journal of Banking & Finance, Elsevier cilt. 28(9), s.2259-2281,
- Monti, M. (1972), Deposit, Credit and Interest Rate Determination under Alternative Bank Objectives, In Mathematical Methods in Investment and Finance, edited by Szego, G.P. and Shell K., North Holland Amsterdam.
- Pesaran, M. H. (2004). General Diagnostic Tests for Cross-section Dependence in Panels. Faculty of Economics. doi:10.17863/CAM.5113
- Pesaran, M. H. (2007). A simple panel unit root test in the presence of cross-section dependence. Journal of Applied Econometrics, 22(2), 265–312. doi:10.1002/jae.951
- Pesaran, M. H., Ullah, A. ve Yamagata, T. (2008). A bias-adjusted LM test of error cross-section independence. Econometrics Journal, 11(1), 105–127. doi:10.1111/j.1368-423X.2007.00227.x
- Raharjo, P.G., Hakim, D.B., Manurung, A.H. ve Maulana T.N.A (2014), International Journal of Economics and Financial Issues, Vol.4, No.2, pp.295-308, ISSN: 2146-4138.
- Saksonova, S. (2014). The Role of Net Interest Margin in Improving Banks' Asset Structure and Assessing the Stability and Efficiency of their Operations, Procedia - Social and Behavioral Sciences, Volume 150, 2014, Pages 132-141, ISSN 1877-0428,
- Selçuk, H. ve Tunay K.B., (2014). Ticari Banka Yönetiminin Temelleri. Nobel Yay. p. 124
- Sul, D., Phillips, P. C. B. ve Choi, C. Y. (2005). Prewhitening bias in HAC estimation. Oxford Bulletin of Economics and Statistics, 67(4), 517–546.
- Şak, N. (2018). Panel Birim Kök Testleri. S. Güriş (Ed.), Uygulamalı Panel Veri Ekonometrisi içinde (ss. 1–451). İstanbul: DER Kitabevi ve Dağıtım.

- Tatoğlu, Y. F. (2017). Panel Zaman Serileri Analizi. İst.Beta Basım Yayın Dağıtım A.Ş.
- TBB (2023), Türkiye Bankalar Birliği, https://www.tbb.org.tr/tr E.T: Mart 2023.
- Toda, H. Y. ve Yamamoto, T. (1995). Statistical Inference in Vector Autoregressions with Possibly Integrated Processes. Journal of Econometrics, 66(1–2), 225–250.
- Ün, T. (2015). Stata ile Panel Veri Modelleri. S. Güriş (Ed.), Stata ile Panel Veri Modelleri içinde (ss. 39–80). İstanbul: DER Yayınları.
- Valverde, S.C., ve Fernández, F.R. (2007), The determinants of bank margins in european banking, Journal of Banking & Finance, vol.31(7), s.2043–2063.
- Wong, K. P. (1997). On the determinants of bank interest margins under credit and interest rate risks. Journal of Banking & Finance, XXI, 2, 251-271.
- Yüksel, S. ve Zengin, S., (2017). Influencing Factors of Net Interest Margin in Turkish Banking Sector, International Journal of Economics and Financial Issues, 7(1),178-191.



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Evaluation of Accreditation And Service Quality Perceptions of The Managers in JCI Certified Health Institutions: The Türkiye Case

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Research Article	ABSTRACT
History	Global competition has been continuously rising in all sectors in the world. In parallel with this, expectations regarding service quality and customer satisfaction in the health are increasing rapidly, in particular in the service sector. In this direction, especially in the last quarter century, very important steps have been taken on quality
Received: 21/07/2023 Accepted: 05/10/2023	and accreditation in health industry in the world. It is known that the leadership of the top management directly affects the processes, especially in quality and accreditation.
	For this purpose, survey type research method, which is one of the quantitative research methods, was used. In the research a questionnaire form was chosen as the data collection technique. Interviews were conducted face-
	to-face and using an online survey method. A questionnaire covering the effects of accreditation on service quality, other factors affecting service quality, and demographic characteristics of the participants was applied
	to a total of 289 health institution managers, who constitute the study group of the research. The data obtained through the survey study were analyzed and tested using IBM SPSS 23.0 and IBM AMOS 23.0 package programs,
	and structural equation modeling (SEM) was used to test the research hypotheses. Based on the results of the research, it has been revealed that leadership and data, which are also components
	of total quality management, have a significant impact on the perceptions of employees about accreditation and the results of quality.

Keywords: Health Institutions Management, Quality in Health, Service Quality Perception, Accreditation, Joint Commission International

JCI Belgeli Sağlık Kurumlarında Yöneticilerin Akreditasyon ve Hizmet Kalitesi Algılarının Değerlendirilmesi: Türkiye Örneği

	ÖZ
	Küresel rekabet tüm sektörleri etkisi altına almaya devam etmektedir. Buna paralel olarak hizmet sektörü,
Süreç	özelinde de sağlıkta hizmet kalitesi ve sağlıkta müşteri memnuniyeti ile ilgili beklentiler de hızla artmaktadır. Bu
	doğrultuda, özellikle son çeyrek asırda dünyada sağlıkta kalite ve akreditasyon üzerine çok önemli adımlar
Geliş: 21/07/2023	atılmıştır. Kalite ve akreditasyonda üst yönetimin liderliğinin süreci doğrudan etkilediği bilinmektedir.
Kabul: 05/10/2023	Bu çalışmada, nicel araştırma tekniklerinden biri olan tarama türü araştırma yöntemini kullanılmıştır. Veri
	toplama sürecinde anket yöntemi tercih edilmiştir. Mülakatlar hem bire bir hem de online anket biçiminde
	yapılmıştır. Çalışmanın katılımcılarını oluşturan toplam 289 sağlık kuruluşu yöneticisi ile akreditasyonun hizmet kalitesine olan etkisini, hizmet kalitesini şekillendiren diğer unsurları ve katılımcıların demografik detaylarını
	belirlemek üzere hazırlanan bir dizi ifadeyi içeren anketler yapılmış, toplanan veriler, IBM SPSS 23.0 ve IBM AMOS
	23.0 yazılımları kullanılarak değerlendirilmiştir. Araştırma varsayımlarını doğrulamak için yapısal eşitlik
	modellemesi tekniği kullanılmıştır.
	Araştırmanın sonuçlarından hareketle, toplam kalite yönetiminin de bileşenlerinden olan liderlik ve verilerle
	yönetimin çalışanlarının akreditasyona ilişkin algılarında ve kalite sonuçları üzerinde önemli etkisi olduğu ortaya
	çıkmıştır.
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.	er, E.B. (2023). Evaluation of Accreditation And Service Quality Perceptions of The Managers in JCI Certified Health
Institutions: The Türki	ve Case, Journal of Economics and Administrative Sciences, 24(4), 625-635. DOI: 10.37880/cumuiibf.1331125

Giriş

Sağlıklı olma ve bu doğrultuda sağlık hizmeti alma tüm dünya ülkelerinde temel insan hakları içerisinde yer alır. Mevcut sağlık düzeyinin korunması, bozulan sağlığın iyileştirilmesi, sağlığın geliştirilmesi gibi farklı boyutlarıyla tüm insanlığı kapsayan geniş bir yelpazede sunulan sağlık hizmetleri değişen ve gelişen zamanla birlikte hasta ya da müşteri beklentilerinin artması, iletişim ağlarının güçlenmesi ile farkındalığı artan ve sağlıkla ilgili haklarını çok daha iyi sorgulayabilen hasta profili, hizmet sunucularını bu alanda daha iyiyi aramaya itmiştir.

Kalite, esasında uygunluk, performans, dayanıklılık, güvenilirlik, estetik, hizmet görürlük, itibar ve müşteriyi çeken cazibe gibi unsurlardan oluşmaktadır. Kalitenin bir yönetim yaklaşımı olarak uygulanması "Toplam Kalite Yönetimi (TKY)" ile açığa çıkmıştır. TKY yönetim biliminin post modern yaklaşımlarındandır. İşletme amaçlarını gerçekleştirmek ve süreçler ile ilgili performans düzeyini geliştirmek isteyen işletmelerin benimsediği birtakım prensiplere dayanır.

Bu çalışmanın amacı, uluslararası alanda akredite çalışmaları yapan Joint Commission International-JCI'a akredite olmuş Türkiye'deki tüm sağlık kurumları yöneticilerinin akreditasyonun hizmet kalitesi üzerine etkilerinin boyutlardaki görüşlerinin cesitli değerlendirilmesidir. Bu amaç doğrultusunda, nicel arastırma yöntemlerinden biri olan tarama türü arastırma yöntemi kullanılmış ve araştırma problemi olarak "JCI belgeli sağlık kurumlarında liderlik, taahhüt ve destek, stratejik kalite planlaması, insan kaynakları kullanımı, kalite yönetimi, veri kullanımı ve akreditasyon uygulamalarının (çalışanların katılımı ve akreditasyon sonuçlarından elde edilen faydaların hizmet kalitesi üzerindeki etkisi) hizmet kalitesi üzerinde anlamlı bir etkisi var mıdır?" belirlenmiştir.

Hizmet Kavramı

Hizmet kavramı soyut bir kavramdır ve farklı bakış açıları farklı tanımları beraberinde getirmiştir (Gümüş ve Tütüncü, 2012). Müşteri, hissedar, borç veren veya işveren bir algıya ve dolayısıyla sağlanacak hizmetlerle ilgili bir beklentiye sahiptir ve bu hizmet anlayışının temelini oluşturur. Kullanılan ekipman, ilgili prosedürler ve yerleşim düzeni gibi kaliteli hizmet sağlama sürecinin tümünde yer alan çeşitli unsurlar hizmet sistemini oluşturur (Jonah, 2019).

Tanım olarak bakıldığında hizmet, alıcıya zaman, yer, biçim, problem çözme veya deneyimsel değer sağlayan süreçler (Lovelock ve Patterson, 2015) ya da kaynakların (öncelikle bilgi ve becerilerin) başka bir kişi veya kuruluşun (yararlanıcı) yararına uygulanmasıdır (Greer ve ark., 2016).

Hizmet kavramının yapısı gereği kendine has özelliklerinin olduğunu söylemek mümkündür. Hizmetin, onu fiziksel ürünlerden ayırt eden kendine özgü birkaç özelliği bulunmaktadır (Değermen, 2006). Hizmetlerin başlıca karakteristik özellikleri soyutluk (dokunulmazlık, elle tutulamaması), ayrılmazlık (eş zamanlı üretim ve tüketim), dayanıksızlık (Korkmaz vd., 2017), heterojenlik (Değermen, 2006) ve sahipliktir (Öztürk 2019). Hizmet firmaları bu özelliklerle beraber, fiyat ve müşteri beklentilerini karşılayacak şekilde temel hizmet kalitesi ve performans özelliklerini sağlamaya odaklanmaktadırlar (Rao, 2011).

Kalite ve Hizmet Kalitesi

Kalite kavramı kullanıldığı yere göre farklı anlamlar taşıyabilir. Bunun nedeni kalitenin çok boyutlu ve subjektif olmasıdır. Pek çok insana göre kalite; "pahalı", "lüks", "üstün olan", "nadir olan", "olumlu özelliklere sahip olan" "benzerlerinden farklı olan" demektir. Uzmanlar, kalite ile ilgili farklı tanımlar yapmaktadır. Bazı literatürdeki yazarlar, kaliteyi "koşullara olan uyumluluk seviyesi" olarak yorumlarken, diğerleri ise "ürün ya da hizmetin belirli bir gereksinimi tatmin edebilme yetisi" olarak tanımlamaktadır. Ek olarak, yönetim bilimi alanındaki uzmanlar arasında "tasarım kalitesi" ve "uygunluk kalitesi" olmak üzere bir ayrıma gidildiği görülmektedir (Yatkın, 2004).

En genel tanımıyla kalite: "aranan, kendisine karşı istek duyulan, beklenen ve istenen koşulların olabildiğince yetkin bir şekilde, tatmin edici düzeyde ve ihtiyaç duyulan zamanda yerine getirilmesidir" olarak tanımlanmaktadır. Avrupa Kalite Organizasyonu (EOQ) kaliteyi "malın veya hizmetin tüketici isteğine uygunluk derecesi" olarak tanımlar. Amerikan Kalite Kontrol Derneği (ASQC) kaliteyi "malın veya hizmetin, belirli bir düzeyde gerekli olma durumunu karşılayabilen yeteneğini sergileyen ayırıcı nitelikleridir" şeklinde tanımlamaktadır (ASQC'dan Akt. Marşap, 2014).

Günümüzde hizmet sektöründe rekabet artmış ve kurum stratejileri müşteri odaklı hale gelmiştir. Örgütlerin varlığını sürdürebilmesi ve rekabet üstünlüğü sağlayabilmesi için müşteri odaklı stratejileri geliştirmesi gerekmektedir. Bu stratejilerin asıl amacı müşteri memnuniyetini sağlamak ve müşterileri işletmeye veya markaya bağlı birer tüketici haline getirerek, işletmeler daha iyi hizmet kalitesi sunma yarışı içine girmişlerdir (Gülmez ve Kitapcı, 2008). Hizmet kalitesi kavramının tanımı gerektiğinde "alıcının hizmete yönelik beklentileri ile hizmet performansını algılama kapasitesi arasındaki farkın seviyesi" şeklinde ifade edilebilir (Örs, 2007).

Sağlık Kurumlarında (Hizmetlerinde) Kalite

Sağlık kurumlarında hizmet kalitesi "sağlık hizmetleri bünyesinde bulunan farklı elemanlarının, önceden belirlenmiş standartlara uygunluğu veya kusursuzluk derecesi" olarak ifade edilmektedir. Bu tanıma bakıldığında, önceden belirlenmiş ve kabul edilmiş standartlar doğrultusunda bakım hizmeti sunmak, hastalarla birlikte, sağlık elemanlarının da yönetişim anlamında karar verme süreçlerine katıldığı, hasta güvenliğine de maksimum düzeyde önem verilmesi kaçınılmaz hale gelmektedir (Güven ve Bektaş, 2011). Sağlık sektörü toleransı düşük ve kompleks bir hizmet sektörü olarak bilinmektedir. Bu nedenle etkili bir sağlık hizmetinin temel özelliklerinden biri bütünsel bir koordinasyona sahip olmaktır. Sağlık hizmetlerinin etkinliği değerlendirilirken hem ilgili sürecin girdisine, çıktısına ve performansına hem de bütüncül olarak sürece yaptığı katkıya bakılmalıdır. Sunulan sağlık hizmetlerinin herhangi bir kademesinde aksaklık olması istenmeyen sonuçları ortaya çıkarabilir (Çepni, 2019).

TKY yaklaşımı çerçevesinde sağlık hizmeti kalitesi; hizmet alan hastaların istek ve ihtiyaçlarının tam, devamlı ve anında karşılanmasıdır. Sağlık hizmetleri dahilinde yürütülen toplam kalite yönetimi çalışmaları alt yapı, hizmet süreç ve sonuçlarının da birbirinden ayrılmaz bütünsellikte kapsar. Sağlık hizmetleri toplam kalite çalışmalarında hastaların bakımı ve tedavileriyle alakalı uzmanlaşmış standartları devamlı iyileştiren sağlık personeli ile hasta ve yakınlarının devamlı suretle memnuniyeti tüm işlemlerin odağında yer almaktadır (Marşap, 2014). Sağlık hizmetlerinde yapılan kalite çalışmalarının özellikleri etkenlik, etkililik, hakkaniyet, kabul edilebilirlik, optimallik, verimlilik ve yasallık olarak sıralanabilir (Donabedian, 1988).

Sağlık Kurumlarında Kalite Standartları (Hastane)

Hastanelerde hizmet kalite standartlarının sürekli gelişimi ile tedavi hizmetlerinde uygulanacak minimum standartların tespiti ön plandadır. Sağlık çalışanlarının yaptıkları işin uzmanlık gerektirmesi bakımından doğru zamanda ve doğru şekilde yapmaları amaçlanır. Ayrıca her yönetici başarı adına bu standartları uygulama noktasında öncü rol modeldedir (Marşap, 2014). Ülkemizde hastane standartları Gösterge Yönetimi, Kurumsal Hizmetler, Destek Hizmetleri, Hasta ve Çalışan Odaklı Hizmetler ve Sağlık Hizmetleri olarak toplam beş boyuttan oluşur ki bu standartlar hastanenin tüm bölümlerini kapsar ve kırk altı bölüm bulunur (Sağlık Bakanlığı, 2020).

Akreditasyon Kavramı

Bir ülkede sağlık ile ilgili tanımlar yapılırken sıklıkla ülkede benimsenen sağlık politikası, ülkenin sağlık hizmeti düzeyi ve toplumun sağlık düzeyi olarak adlandırılan üç bileşen üzerinde durulduğu izlenmektedir. Bu bileşenlerden ilkini oluşturan sağlık politikası, ülkedeki sağlık sektörünün benimsenen felsefeler doğrultusunda düzenlenmesi ve yapılandırılması ile ilgili olarak ele alınmakta, kalite ve akreditasyon kavramları ise daha çok sunulan sağlık hizmetlerinin düzeyi hakkında fikir veren birer kavram olarak ortaya çıkmaktadır (Kayral ve ark., 2018).

Uluslararası Sağlıkta Kalite Derneği akreditasyonu "sağlık kuruluşları tarafından daha önce belirlenmiş kriterlere göre kesin olarak kendi başarı seviyelerini ölçmek için kullanılan bir öz değerlendirme ve dış denklik değerlendirme süreci" olarak tanımlamıştır. Akreditasyon, sağlık kuruluşları hakkında standardize, objektif bilgi gereksinimi sonucunda gelişmiştir. Hemen hemen tüm akreditasyon programları isteğe bağlıdır. Kuruluşlar değişik nedenlerle akreditasyon aramaktadırlar. Ancak çoğunluk pazar paylarını artırmak, müşteri memnuniyeti kazanmak ve profesyonel saygınlık edinmek için bunu yapmaktadırlar (Al-Assaf ve Akgün, 2020).

Akreditasyondaki nitelikler ülkelere göre farklılık gösterir. Buna rağmen temel nitelikte ve değişmeyen birtakım özelliklere sahiptir (Sarp, 2017):

- Akreditasyon birtakım ölçütler ve beklentiler karşısında söz konusu kuruluşun kalite faaliyetlerinin sorgulanmasını içerir.
- Kurumların yapısal olarak birtakım farklılıkları söz konusudur ve akreditasyon bu farklılıkları tanıdığı gibi aynı zamanda saygı ile kabullenmektedir.
- Akreditasyon, denetlenen kurumların kaliteyle ilgili beklentilerini tatmin derecesinde ya da daha fazla karşıladıkları konusunda güvence anlamına gelmektedir.

Sağlıkta Akreditasyonun Önemi ve Sağlık Hizmetleri Üzerine Etkisi

Dünya ölçeğinde sayısız sağlık kuruluşu sundukları hizmetlerin etkililik ve verimliklerine ilişkin problemlere çözüm bulmak amacıyla başka endüstrilerde başarılı sekilde uvgulanan kalite vönetim sistemi ve dış değerlendirme modellerini benimseye başlamışlardır. Sağlık hizmetlerinde kalitenin geliştirilmesine dair stratejiler kapsamında incelenen bu şemalar, hizmet kalitesini geliştirmek isteyen sağlık organizasyonları için yararlı bir şablon ortaya koymaktadır (Şimşir, 2019). Akreditasyon sağlık organizasyonları arasında karşılaştırma mekanizması sağlamaktadır. Özellikle "övgüye değer" veya "mükemmel" durumda olan akreditasyonu başarmış organizasyonlar, pozitif imaja sahip olacaktır ve ona dayanarak üstünlüğünü hizmetlerini pazarlamak icin kullanacaktır. Akreditasyon bundan dolayı pozitif pazarlama aracı ve sağlık bakım organizasyonları arasında pozitif değer artıran yarış aracı olarak kullanılabilir. Akreditasyonun başarısıyla örnek olan kaliteye dayalı yarış, ücretsiz yarışın bir formudur ve bu form pozitif bir yarıştır. Diğer bir taraftan pozitif bir yarış, kıyaslama ve sizin yarışçılarınızın pozitif özelliklerini tanımlamayı organizasyonunuzdaki bu sıfatların seviyesi daha iyi olsa bile başarmayı cesaretlendirir, mükemmeliyet için sürekli araştırma süreci ve kendi mükemmeliyeti sistemindeki taklit etmek için mekanizmadır. Akreditasyon bu süreci hızlandırır ve cesaretlendirir (Al-Assaf ve Akgün, 2020).

Uluslararası Akreditasyon Çalışmaları

Bu alanda Tabrizi'nin (2011) yapmış olduğu akademik bir çalışmada, sağlık hizmeti akreditasyon örneklerinin fayda ve zarar durumları farklı akreditasyon programlarının atıf sıklığı ile incelenmiştir. Burada Amerika Birleşik Devletleri'nde Joint Commission on Accreditation (JCI), Kanada'da Canadian Council on Health Services Accreditation (CCHSA), İngiltere'de National Health Service (NHS), Avustralya'da The Australian Council on Healthcare Standards (ACHS), Avustralya ve Yeni Zelanda'da The Joint Accreditation System of Australia

and New Zealand (JAS-ANZ) ve Fransa'nın Agence Nationale d'Accréditation et d'Évaluation Sante (ANAES) akreditasyon programları dâhil olmak üzere uluşlararaşı platformda altı sistemin tanımlandığını görmekteyiz. Alıntının en çok yapıldığı programın, %91'le ABD merkezli JCI olduğu yapılan araştırmada ortaya çıkan sonuçtur. Onun en yakın rakibi ise Kanada (%17)'dır. İngiltere ve Avustralya merkezli programlar Kanada'yı takip etmektedir. Standart ölçütleri incelendiğinde hedeflenen noktaların farklı olduğu görülmüştür. JCI hastaların ve personelin güvenliğini sağlama konusunda, Kanada'nın CCHSA programında sürekli kalite gelişimi üzerinde yoğunlaştığı görülüyor. Avusturalya akreditasyon sistemi JAS-ANZ'nin ise klinik bakımın iyilestirilmesine yönelik hedeflerin ön planda olduğu görülmektedir. Programların öne çıkan ölçütlerinin benzer olmadığı gerçeğine rağmen genel yaklasımlarının oldukça benzer niteliklere sahip olduğu bilinmektedir (Şahin, 2020).

Joint Commission International (JCI)

JCI, International Evaluation Association for Quality in Healthcare (IEEA) tarafından akreditasyon sürecinden geçmiş ve onaylanmıştır. IEEA, dünya çapında sağlık ve sosyal bakım dış değerlendirme kuruluşlarına ve standartları geliştiren kuruluşlara üçüncü taraf dış değerlendirme hizmetleri sağlar. Sağlıkta hizmet kalitesi ve hasta güvenliği konusunda uluslararası standartlar gelistirmeyi ve sürdürmeyi hedefler. Faaliyetlerini iyi şekilde sürdüren JCI, tecrübeli hekimlerden, yardımcı yöneticilerden sağlık personelden, ve politikası uzmanlarından oluşan Standartlar Danışma Kurulu oluşturmuştur. Kurul, JCI akreditasyon standartlarının geliştirilmesine rehberlik etmektedir. Kurul üyeleri dünyanın beş büyük bölgesindendir: Orta Doğu, Avrupa ve Amerika Birleşik Devletleri, Asya ve Pasifik Kıyıları, Latin Amerika ve Karayipler'dir (https://www.jointcommission international.org/).

Joint Commission International'ı akreditasyon ortağı olarak belirleyen kuruluşlar, daha fazla hastayı çekmeye ve kuruluşlarını küresel çapta çıtayı yükseltmeye yardımcı olacak bakım hizmetlerinde mükemmellik taahhüdü almak için seçmektedirler (Donahue ve Vanostenberg, 2000). JCI, en iyi uygulama örneklerini oluşturur ve her dönem versiyonlarını yeniler. JCI, uluslararası düzeyde binlerce firmayla yaptığı çalışmalarla sağlık alanındaki hizmetlerin kalitesinin iyileştirilmesi ve hasta güvenliğinde güçlü bir bakış açısı sağlar (Mehta ve ark., 2017).

JCl'ın varsayımına göre, birey istediği ya da ihtiyaç duyduğu tüm sağlık hizmetlerinden hızlı ve etkin kullanım hakkına sahiptir. Yaşlı, başkalarına bağımlı ve kronik hastalık sahibi kişilerin tedavilerinin yapılması ve evde bakım hizmetinden istifade etmesi zorunlu bir ihtiyaçtır. Tüm bunlar yerine getirilirken hastanın güvenliğine en üst seviyede önem verilmelidir (Hayran, 2012).

Uluslararası akreditasyon standartlarının oluşturulması amacıyla on altı üyeli bir ekip çalışmaktadır. Bu ekip çeşitli uluslardan gelen alanında deneyimli ve uzmanlık sahibi hekimler, hemşireler ve idarecilerdir. Bu ekibi Asya ve Pasifik ülkeleri, Güney Amerika ve Karayipler, Ortadoğu, Batı Avrupa ve Afrika, Orta ve Doğu Avrupa'dan gelen üyeler oluşturur. Uluşlararaşı Standartlar Komitesi calışmalarını sürdürmekte ve standartların cağdaş uygulamayı devamlı yansıtması için gerekli güncellemeler ve geliştirmeler hakkında önerilerde bulunur. Standartlar, sağlık hizmeti sunan tüm kuruluşları için ortak olan önemli nitelikler etrafında tasarlanmıştır (Uluslararası Bileşik Komisyon Hastaneler için Akreditasyon Standartları, 2002). Akreditasyona katılım koşulları dört ana bölümden oluşur (Uluslararası Bileşik Komisyon Hastaneler için Akreditasyon Standartları, 2020):

- Hasta merkezli,
- Sağlık bakım kuruluşu yönetimi,
- Akademik tıp merkezi ve
- Hastaneler.

Yöntem

Türkiye'de sağlık kurumları sayı, müşteri ve verilen hizmet noktasında oldukça geniş bir yelpazeye sahiptir. Çalışmanın amacı, uluslararası alanda akredite çalışmaları yapan JCI'a akredite olmuş Türkiye'deki tüm sağlık kurumları yöneticilerinin hizmet kalitesi üzerine çeşitli boyutlardaki görüşlerinin değerlendirilmesidir. Bu nedenle araştırmanın hedef kitlesi araştırmanın amacına uygun sekilde sadece JCI'a akredite olmus sağlık kuruluşlarında görev yapan yöneticiler ile sınırlandırılmıştır. Ülkemizde 2021 yılı Kasım ayı itibariyle JCI'a akredite olan 35 sağlık kurumu bulunmaktadır. Araştırmanın çalışma grubunu JCI'a akredite olan hastanelerde yönetici pozisyonunda görev yapan 289 sağlık kuruluşu yöneticisidir. 35 sağlık kuruluşunda bu pozisyonlarda çalışan toplam 750 kişi bulunmaktadır. Araştırmanın örneklemi ise

$$n = \frac{N.p.q.t_{\alpha}}{(N-\alpha)^2 + \epsilon^2}$$

 $(N-1)\alpha^2 + t_{\alpha}^2 \cdot p \cdot q$

Karagöz (2016) 255 kişi olarak belirlenmiş ve çalışmada 289 kişiye ulaşılmıştır. Ulaşılan örneklemin %95 güven düzeyinde yaklaşık %5 hata payı ile evreni temsil etmektedir. Araştırma örnekleminin seçimi ve örnekleme erişim sürecinde, olasılık esasına dayanmayan örnekleme metodolojilerinden biri olan kolayda örnekleme tekniği tercih edilmiştir.

formül

kullanılarak

Araştırmanın verileri anket formu ile toplanmıştır. Anket, Yıldız (2010) tarafından hazırlanan "Akreditasyon Belgesine Sahip Bir Hastanede Calisan Hemsirelerin Akreditasyonun Hizmet Kalitesine Etkisi Hakkındaki Algıları" başlıklı çalışmasından alınmıştır. Söz konusu anket formunda kullanılacak olan ölçekler, El Jardali ve arkadaşları tarafından (2008) yılında yayımlanan bir çalışmada kullanılan anket formu, bu araştırmada veri toplama aracı olarak seçilmiştir. Bu anket formu, akreditasyonun hizmet kalitesi üzerindeki etkisini ve hizmet kalitesini etkileyen diğer değişkenleri değerlendirmek için hemşirelerin görüşlerini analiz etmek hazırlanmıştır. Akreditasyonun amacıyla faydaları konusundaki alt bölüm, El-Jardali ve arkadaşları (2008) tarafından Pomey ve arkadaşları (2004)'nın çalışmasına dayanarak oluşturulmuştur. Anketin diğer bölüm ve alt

ise, bölümleri Shortell ve arkadaşları (1995)'nin çalışmasından esinlenilerek hazırlanmıştır. Shortell ve arkadasları, bu ifadeleri Malcolm Baldrige Sağlık Bakım Kriterleri'nden alarak kendi çalışmalarında kullanmışlardır. Bu çalışmanın son hali Yıldız (2010) Anket tarafından Türkçeye uyarlanmıştır. formu demografik ifadelerle birlikte yedi bölümdür. Toplam 289 sağlık kuruluşu yöneticisine Google Forms platformunda 159 adet çevrimiçi ve 130 adet yüz yüze olmak üzere anket uygulanmış ve araştırmanın verileri elde edilmiştir. Anket formu demografik özellikleri belirleyen ifadelerin dısında, kalite sonuçları ölçeği, liderlik, taahhüt ve destek ölçeği, stratejik kalite planlaması ölçeği, insan kaynakları kullanımı ölçeği (eğitim ve öğretim alt ölçeği, ödül ve takdir alt ölçeği), kalite yönetimi ölçeği, akreditasyon ölçeği (çalışan katılımı alt ölçeğ, ve akreditasyonun faydaları alt ölçeği), veri kullanımı ölçeklerinden oluşmaktadır. ölçeklere verilen cevaplar en olumsuz seçenekten en olumlu seçeneğe doğru "1=kesinlikle katılmıyorum", "2=katılmıyorum", "3=kararsızım", "4= katılıyorum" ve "5=kesinlikle katılıyorum" şeklinde puanlanmıştır. Ölçeklere ait ortalama puanlar ise içerdikleri maddelerin toplam puanı madde sayısına bölünerek hesaplanmıştır.

Araştırmanın Hipotezleri

Araştırmanın amacı doğrultusunda araştırmanın hipotezleri ve alt hipotezleri aşağıdaki gibi oluşturulmuştur:

H₁: JCI belgeli sağlık kurumlarında Liderlik, Taahhüt ve Destek uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H₂: JCI belgeli sağlık kurumlarında, Stratejik Kalite Planlaması uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H₃: JCI belgeli sağlık kurumlarında, İnsan Kaynakları Kullanımı uygulamalarının hizmet kalitesi üzerinde etkisi vardır. H_{3a}: JCI belgeli sağlık kurumlarında, İnsan Kaynakları Kullanımında, Eğitim ve Öğretim uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H_{3b}: JCl belgeli sağlık kurumlarında, İnsan Kaynakları Kullanımında, Ödül ve Takdir uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H4: JCI belgeli sağlık kurumlarında, Kalite Yönetimi uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H₅: JCI belgeli sağlık kurumlarında, Veri Kullanımı uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H₆**:** JCI belgeli sağlık kurumlarında, akreditasyon uygulamalarının hizmet kalitesi üzerinde etkisi vardır.

H_{6a}: JCI belgeli sağlık kurumlarında, akreditasyon uygulamalarında çalışanların katılımına yönelik uygulamaların hizmet kalitesi üzerinde etkisi vardır.

H_{6b}: JCI belgeli sağlık kurumlarında, akreditasyon uygulamalarında, akreditasyon sonuçlarından elde edilen faydaların hizmet kalitesi üzerinde etkisi vardır.

Araştırmanın yukarıda sıralanan hipotezleri doğrultusunda test edilecek araştırma modeli Şekil 1'daki gibi oluşturulmuştur.

Araştırma verilerinin değerlendirilmesinde, sayısal ortalama ve standart sapma gibi tanımlayıcı istatistik yöntemleri yanında frekans ve yüzde dağılımı teknikleri de uygulanmıştır. Kullanılan skalaların yapısal geçerliğinin değerlendirilmesi sırasında Doğrulayıcı Faktör Analizi (DFA), skala güvenirliği için ise Cronbach Alfa içsel tutarlılık katsayısı ele alınmıştır. Araştırmada kullanılan skalaların ortalama puanları, normal dağılım gösterip göstermediği incelenerek, parametrik veya nonparametrik testlerin kullanımına karar verilmiştir. Araştırma hipotezlerinin denetlenmesi için yapısal eşitlik modelleme yöntemi kullanılmıştır. Bu yöntem, birçok değişken arasındaki ilişkileri aynı anda modellemeye olanak tanır ve daha karmaşık araştırma sorunlarını sistematik ve kapsamlı bir sekilde ele alır (Karagöz, 2019). Modellemede, değiskenlerin faktör yapıları öncelikle DFA ile onaylanmıştır, ardından ilişkilerin anlamlılığı yapısal eşitlik modellemesi ile test edilmiştir (Arslan ve Bardakçı, 2020).



Çizelge 1. Ölçeklere İlişkin Yapılan DFA Sonucunda Elde Edilen Uyum İndeksi Değerleri
Table 1. Fit Index Values Obtained as a Result of DFA for the Scales.

	χ²/sd	GFI	NFI	IFI	CFI	RMSEA
Kabul Edilebilir Uyum	≤ 5	≥ 0,85	≥ 0,90	≥ 0,90	≥ 0,95	≤ 0,08
İyi Uyum	≤ 3	≥ 0,90	≥ 0,95	≥ 0,95	≥ 0,97	≤ 0,05
Liderlik, Taahhüt ve Destek	4,826	0,921	0,953	0,962	0,962	0,078
Stratejik Kalite Planlaması	4,583	0,944	0,967	0,973	0,973	0,087
İnsan Kaynakları Kullanımı	2,466	0,978	0,987	0,992	0,992	0,071
Kalite Yönetimi	4,479	0,953	0,975	0,978	0,978	0,075
Veri Kullanımı	5,426	0,921	0,963	0,966	0,966	0,089
Akreditasyon	4,388	0,867	0,936	0,950	0,950	0,098
Kalite Sonuçları	2,411	0,987	0,990	0,994	0,994	0,070



Çizelge 2. Araştırma Modeline	İlişkin Uyum	İndeksi Değerleri
Table 2. Fit Index Values for the	e Research M	odel

	χ²/sd	GFI	NFI	IFI	CFI	RMSEA
Kabul Edilebilir Uyum	≤ 5	≥ 0,85	≥ 0,90	≥ 0,90	≥ 0,95	≤ 0,08
İyi Uyum	≤ 3	≥ 0,90	≥ 0,95	≥ 0,95	≥ 0,97	≤ 0,05
Model	2,954	0,938	0,916	0,955	0,955	0,082

İlk olarak dokuz maddeden ve tek boyuttan oluşan Liderlik, Taahhüt ve Destek ölçeği için Şekil 1'deki model oluşturularak DFA uygulanmıştır. Analiz sonucunda modelin uyum indeksi değerleri χ^2 /sd=4,826 olarak, GFI=0,921 olarak, NFI=0,953 olarak, IFI=0,962 olarak, CFI=0,962 olarak ve RMSEA=0,078 olarak hesaplanmıştır (Çizelge 1). Bu değerlere göre Liderlik, Taahhüt ve Destek ölçeğine ait model verilerle GFI, NFI ve IFI uyum indekslerine göre iyi düzeyde, χ^2 /sd, CFI ve RMSEA uyum indekslerine göre ise kabul edilebilir düzeyde uyum göstermektedir.

AMOS yazılımında yapısal eşitlik modellemesi kullanılarak araştırma modeli ve hipotezlerin test edilmesi sonucunda elde edilen verilere çalışmada yer verilmiştir. Şekil 2'de görülebileceği üzere, araştırma modelinin AMOS programında oluşturulmuş bir diyagramı bulunmaktadır. Modelin uyumu iyileştirmek adına, teorik olarak uygun olan değişiklikler dikkate alınarak düzenlemeler gerçekleştirilmiştir.

Şekil 2'de gösterilen düzeltme işlemleri sonucunda (LTD: Liderlik, Taahhüt ve Destek, SKP: Stratejik Kalite Planlaması, EÖ: Eğitim ve Öğretim, ÖT: Ödül ve Takdir, KY: Kalite Yönetimi, VK: Veri Kullanımı, ÇK: Çalışanların Katılımı, AF: Akreditasyonun Faydalarının, KS: Kalite Sonuçları) ortaya çıkan modelin final versiyonuna ilişkin analizden elde edilen uyum indeksi değerleri, Çizelge 2'de gösterilmiştir.

Hipotez	İlişki Yolları	Regresyon Katsayısı	Std. Hata	р	Sonuç
H ₁	Kalite Sonuçları 🔶 Liderlik, Taahhüt ve Destek	0,539	0,053	<0,001	Kabul
H ₂	Kalite Sonuçları — Stratejik Kalite Planlaması	0,026	0,035	0,458	Ret
H_{3a}	Kalite Sonuçları 🗲 Eğitim ve Öğretim	0,044	0,047	0,356	Ret
H _{3b}	Kalite Sonuçları 🗲 Ödül ve Takdir	-0,042	0,046	0,368	Ret
H ₄	Kalite Sonuçları — Kalite Yönetimi	-0,015	0,034	0,655	Ret
H ₅	Kalite Sonuçları — Veri Kullanımı	0,104	0,037	0,005	Kabul
H_{6a}	Kalite Sonuçları 🗲 Çalışanların Katılımı	0,056	0,066	0,399	Ret
H _{6b}	Kalite Sonuçları 🔶 Akreditasyonun Faydaları	0,176	0,072	0,015	Kabul

Çizelge 3. Araştırma Modelinin Testine Yapısal Eşitlik Modellemesi Bulguları Table 3. Structural Equation Modelling Findings for Testing the Research Model

Çizelge 2'deki verilere istinaden, denenen araştırma modelinin uyum indeks değerleri sırasıyla $\chi 2/sd=2,954<3$; GFI=0,938>0,90; NFI=0,916>0,90; IFI=0,955>0,95; CFI=0,955>0,95 ve RMSEA=0,082>0,08 olarak tespit edilmiştir. Bu değerler ışığında, denenen araştırma modelinin $\chi 2/sd$, GFI, ve IFI uyum indekslerine göre iyi seviyede; NFI ve CFI uyum indekslerine göre ise makul bir uyum sergilediği gözlemlenmektedir. Şekil 2'de gösterilen denenen modele dahil edilen ilişki yollarının anlamlılığına dair bulgular, Çizelge 3'de sunulmuştur.

Çizelge 3'deki bulgulara göre,

- Araştırmanın H₁ hipotezi kabul edilmiştir (p<0,001). Buna göre yöneticilerin, kurumlarının liderlik, taahhüt ve destek uygulamalarına yönelik algılarının algıladıkları kalite sonuçları üzerinde pozitif yönde anlamlı bir etkisinin olduğu sonucuna varılmıştır. Diğer bir ifadeyle, kurumların liderlik, taahhüt ve destek uygulamalarına ilişkin algı olumlu yönde arttıkça algılanan kalite sonuçları da anlamlı derecede bir artış göstermektedir.
- Araştırmanın H₂ hipotezi reddedilmiştir (p>0,05). Buna göre, yöneticilerin, kurumlarının stratejik kalite planlaması uygulamalarına yönelik algılarının algıladıkları kalite sonuçları üzerinde istatistiksel olarak anlamlı bir etkisinin olmadığı tespit edilmiştir.
- Araştırmanın H_{3a} hipotezi reddedilmiştir (p>0,05). Sonuç olarak, yöneticilerin, kurumlarının insan kaynakları kullanımına yönelik gerçekleştirdiği eğitim ve öğretim uygulamalarına yönelik algılarının algıladıkları kalite sonuçları üzerinde istatistiksel olarak anlamlı bir etkisinin olmadığı belirlenmiştir.
- Araştırmanın H_{3b} hipotezi de reddedilmiş (p>0,05) ve yöneticilerin, kurumlarının insan kaynakları kullanımına yönelik gerçekleştirdiği ödül ve takdir uygulamalarına yönelik algılarının algıladıkları kalite sonuçları üzerinde istatistiksel olarak anlamlı bir etkisinin olmadığı saptanmıştır. Bu durumda, her iki alt hipotezi reddedilen H₃ hipotezi de reddedilerek sağlık kurumlarının insan kaynakları kullanımına yönelik uygulamalarının algılanan kalite sonuçları üzerinde anlamlı bir etkisinin olmadığı söylenebilir.
- Araştırmanın H₄ hipotezi de reddedilmiştir (p>0,05). Buna göre, yöneticilerin, kurumlarının kalite yönetimi uygulamalarına yönelik algılarının algıladıkları kalite sonuçları üzerinde istatistiksel olarak anlamlı bir etkisinin olmadığı sonucuna ulaşılmıştır.

- Araştırmanın H₅ hipotezi kabul edilmiştir (p<0,05). Sonuç olarak, yöneticilerin, kurumlarının veri kullanımı uygulamalarına yönelik algıları algıladıkları kalite sonuçları üzerinde pozitif yönde anlamlı bir etkiye sahiptir. Başka bir ifadeyle, kurumların veri kullanımı uygulamalarına ilişkin algı olumlu yönde arttıkça algılanan kalite sonuçları da anlamlı düzeyde bir artış göstermektedir.
- Araştırmanın H_{6a} hipotezi reddedilmiştir (p>0,05). Buna göre, yöneticilerin, kurumlarının akreditasyon uygulamalarında çalışanların katılımına yönelik algılarının algıladıkları kalite sonuçları üzerinde istatistiksel olarak anlamlı bir etkisinin olmadığı tespit edilmiştir.
- Son olarak, araştırmanın H_{6b} hipotezi kabul edilmiştir (p<0,05). Sonuç olarak, yöneticilerin, akreditasyonun faydalarına yönelik algıları algıladıkları kalite sonuçları üzerinde pozitif yönde anlamlı bir etkiye sahiptir. Diğer bir ifadeyle, akreditasyonun faydalarına ilişkin algı olumlu yönde arttıkça algılanan kalite sonuçları da anlamlı düzeyde bir artış göstermektedir.

Bulgular ve Yorum

Araştırmanın örneklemini oluşturan sağlık kurumu yöneticilerinin demografik özelliklerine göre frekans dağılımlarına bakıldığında çalışma grubundaki sağlık kurumu yöneticilerinin %42,9'u kadın yöneticilerden, %57,1'i ise erkek yöneticilerden oluşmaktadır. Sağlık kurumu yöneticilerinin yaş aralıkları ise %8'i 20-29 yaş arası, %21'i 30-39 yaş arası, %38'i 40-49 yaş arası ve %33'ü 50 yaş ve üzeri yöneticilerdir. Çalışma grubunun eğitim düzeyine göre frekans dağılımına bakıldığında ise sağlık kurumu yöneticilerinin %3'ü lise, %7'si ön lisans, % 12'si doktora, %31'i yüksek lisans ve %47'si lisans düzeyidir. Çalışmaya katılan sağlık kurumu yöneticilerinin %48,8 birim müdürü, %8,7 diğer, %7,3'ü başhemşire yardımcısı, %6,9 süpervizör, %5,9'u birim müdür yardımcısı, %5,5'i başhemşire, %4,8'i başhekim yardımcısı, %4,8'i genel müdür yardımcısı, %4,5'i başhekim ve %2,8'i genel müdürdür. Sağlık kurumu yöneticilerinin %46,7'si sosyal bilimler, %38,8'i sağlık bilimleri, %9,7'si fen bilimleri ve %4,8'i diğer alanlardaki mezun yöneticilerden oluşmaktadır. Çalışma süresine göre frekans dağılımına bakıldığında sağlık kurumu yöneticilerinin %41'i 6-10 yıl, %27'si 15 yıl ve üzeri, %21'i 11-15 yıl ve %11'inin de 5 yıl ve altında çalışan yöneticilerden oluştuğu görülmektedir.

Demografik özelliklerden sonra sağlık kurumu yöneticilerinin kalite sonuçları, liderlik, taahhüt ve destek, stratejik kalite planlaması, insan kaynaklarının kullanımı, eğitim ve öğretim, ödül ve takdir, kalite yönetimi, veri kullanımı, akreditasyon ölçütleri, çalışan katılımı ve ilgili akreditasyonun getirileri gibi değişkenlerle değerlendirmeleri ele alınmış tartışılmıştır. ve Katılımcıların Liderlik, Taahhüt ve Destek Ölçeğine ait ifadelere verdikleri cevaplar incelendiği tüm ifadelerin 4±00 ve üzerinde olduğu bulunmuştur. Katılımcıların bu ölcekte en yüksek katıldıkları ifade 4,08±0,92 ile "Üst yönetim, kalite iyileştirmede itici güçtür" ifadesidir. Genel olarak bu ölçekteki bütün ifadeler incelendiğinde katılımcıların liderlik, taahhüt ve destek algılarının yüksek olduğu söylenebilir. Gök'ün (2023) yılında yaptığı çalışmada Liderlik dinamiklerinin ve yönetim vaklasımlarının, sağlık calısanlarının is tatmin ve stres düzeyleri üzerinde belirlevici rol oynadığını bir "Stratejik vurgulamaktadır. Katılımcıların Kalite Planlaması" ölçeğinine ait ifadelere verdikleri cevaplar incelendiği tüm ifadelerin 3,93±0,98 ve üzerinde olduğu bulunmuştur. Katılımcıların bu ölçekte en yüksek katıldıkları ifade 4,07±0,97 ile "Yöneticiler, kalite iyileştirme planlarının geliştirilmesine katılır." ifadesidir. Çağatay ve Öztürk'ün (2021) yaptığı çalışmada kamu ve özel hastaneler arasında yönetsel hedefler açısından belirgin farklılıklar bulunmakla birlikte, hastane vöneticilerinin stratejik vönetim araclarını kullanma konusundaki memnuniyet düzeyleri benzer özellikler taşıdığı ifade edilmiştir. "İnsan Kaynakları Kullanımı" ölçeğinin alt boyutlarından "Eğitim ve Öğretim" alt boyutunun ifadelerine verilen yanıtlar incelendiğinde üç ifadenin de 3,96± 0,96'dan büyük olduğu görülmektedir. Sunter (2019) yaptığı çalışmasında insan kaynakları yönetiminin yetkin bir biçimde uygulanması, ileri düzey sağlık kuruluşlarının hayata geçirilmesi ve sunulan sağlık hizmetlerinin daha etkin ve verimli hale getirilmesi için esas olduğunu ifade etmiştir. Katılımcıların bu boyutta en yüksek oranda katıldıkları ifade 3,97±0,93 ile "Yöneticilere, akreditasyon denetimleri sonucunda yapılan önerilere dayalı olarak kalite iyileştirme fırsatlarını nasıl belirleyecekleri ve buna göre nasıl davranacakları konusunda eğitim ve öğretim verilir." ifadesidir. Katılımcıların "İnsan Kaynakları Kullanımı" ölçeğinin alt boyutlarına "Eğitim ve Öğretim" alt boyutuna verilen yanıtlar incelendiğinde üç ifadenin de 3,79±1,04'ten büyük olduğu görülmektedir. Aygar ve Önsüz (2017) yaptığı çalışmasında eğitimin; çalışanların bilgi ve beceri kazanmalarını sağlayarak, bu alandaki ortak dilin ve anlayışın teşvik edilmesi ve pekiştirilmesi için kritik bir öneme sahip olduğunu ifade etmiştir. Katılımcıların bu boyutta en yüksek oranda katıldıkları ifade 3,99±0,96 ile "Hastane, yöneticilerin kalitenin nasıl artırılacağı konusunda yönetime önerilerde bulunmaları için etkili bir sisteme sahiptir" ifadesidir. Katılımcıların, "kalite yönetimi" ölçeğine ait ifadelere verdikleri cevaplar incelendiği tüm ifadelerin 3,97±0,93 ve üzerinde olduğu bulunmuştur. Katılımcıların bu boyutta en yüksek oranda katıldıkları ifade ile 4,08±0,93 "Hastane, kalite gereklerini

karşıladığından emin olmak için, donanım ve malzemeleri düzenli olarak kontrol eder" ifadesi olmustur. Katılımcıların veri kullanımı ölçeğine ait ifadelere verdikleri cevaplar incelendiği tüm ifadelerin 3,97±0,99 ve üzerinde olduğu bulunmuştur. Genel olarak bu ölçeğe ilişkin algılarının yüksek olduğu söylenebilir. Katılımcıların bu ölçekte en yüksek katıldıkları ifade 4,07±1,01 ile "Hasta şikâyetleri, aynı problemlerin tekrarlanmasını önlemek üzere, tanımlamak ve öğrenmek için incelenir." ifadesidir. Katılımcıların akreditasyon ölçeğinin alt boyutlarından "Calısanların Katılımı" alt boyutuna verdikleri yanıtlar incelendiğinde tüm ifadelerin 4,02±0,91 ve üzerinde olduğu bundan hareketle de katılımcıların çalışanların vüksek katılımı algılarının olduğu söylenebilir. Katılımcıların akreditasyon ölçeğinin alt boyutlarından akreditasyonun faydaları alt boyutuna verdikleri yanıtlar incelendiğinde tüm ifadelerin 4,03±0,89 ve üzerinde olduğu bundan hareketle de katılımcıların çalışanların katılımı algılarının yüksek olduğu söylenebilir. Kanber ve arkadaşları tarafından 2010 yılında yaptıkları çalışmada, iş ortamının geliştirilmesi, kuvvetli insan ilişkilerinin teşvik edilmesi, çalışanların sorunlarına duyarlılık, iş güvenliğinin garanti altına alınması, çalışma başarılarının ödüllendirilmesi ve gerçekçi çözüm önerilerinin hızla uygulamaya konulması, iş memnuniyeti ve motivasyonun artıracağı anlamda sonucuna ciddi varmışlardır. Katılımcıların bu boyutta en yüksek oranda katıldıkları ifade 4,16±0,88 ile "Akreditasyon, hastanenin toplumun ihtiyaçlarına daha iyi cevap vermesine imkân verir." ifadesidir. Katılımcıların, kalite sonuçları ölçeğine ait ifadelere verdikleri cevaplar incelendiği tüm ifadelerin 3,97±0,90 ve üzerinde olduğu bulunmuştur. Katılımcıların bu ölçekte en yüksek katıldıkları ifade 4,09±0,88 ile "Geçen birkaç yılda, hastane, finansal kısıtlılıklara rağmen yüksek kaliteli sağlık hizmetleri sunmayı sürdürmüştür." ifadesidir. Katılımcıların kalite sonuçları ölçeğinin ifadelerine vermiş oldukları puanlar değerlendirdiğinde algılarının yüksek olduğu söylenebilir. Bizim bulgumuza benzer şekilde Doğan ve Kaya'nın (2004) çalışmasında da sağlık yöneticilerinin kaliteyi destekledikleri saptanmıştır. Demirbilek ve Çolak yaptıkları çalışmada (2008) kalite çalışmalarının kesintisiz ve dinamik bir biçimde ilerlemesi, kalite odaklı yaklaşımın sağlık hizmetlerinin genel etkinliği ve verimliliği üzerinde olumlu ve kalıcı bir etki yaratma potansiyeline sahip olduğunu ifade etmiştir.

Sonuç ve Öneriler

Çalışmada yöneticilerin, kurumlarının liderlik, taahhüt ve destek uygulamalarına yönelik algılarının algıladıkları kalite sonuçları üzerinde pozitif yönde anlamlı bir etkisinin olduğu sonucuna varılmıştır. Diğer bir ifadeyle, kurumların liderlik, taahhüt ve destek uygulamalarına ilişkin algı olumlu yönde arttıkça algılanan kalite sonuçları da anlamlı derecede bir artış göstermektedir. Çalışmanın bir diğer önemli bulgusu yöneticilerin, kurumlarının veri kullanımı uygulamalarına yönelik algıları algıladıkları kalite sonuçları üzerinde pozitif yönde anlamlı bir etkiye sahiptir. Başka bir ifadeyle, kurumların veri kullanımı uygulamalarına ilişkin

algı olumlu yönde arttıkça algılanan kalite sonuçları da anlamlı düzeyde bir artış göstermektedir. Çalışmanın bir diğer bulgusu yöneticilerin, akreditasyonun faydalarına yönelik algıları, algıladıkları kalite sonuçları üzerinde pozitif yönde anlamlı bir etkiye sahiptir. Diğer bir ifadeyle, akreditasyonun faydalarına ilişkin algı olumlu yönde arttıkça algılanan kalite sonuçları da anlamlı düzeyde bir artış göstermektedir. Çalışmanın sonuçlarından hareketle Toplam Kalite Yönetiminin de bileşenlerinden olan liderlik ve verilerle yönetimin çalışanlarının akreditasyona ilişkin algılarında ve akreditasyon sonucları üzerinde önemli olduğu söylenebilir. Bir kurumun kalite ve akreditasyon çalışmalarında yöneticilerin ve bütün çalışanların, kalite kültürünü benimseyerek akreditasyonun faydalarının farkında olarak kalite çalışmalarında aktif rol oynamaları gerekmektedir. Bu tez çalışmasında da görüldüğü üzere vöneticilerin kalitenin favdalarına yönelik algıları arttıkca kalite sonuçları da artmaktadır.

Araştırma bulguları ışığında yukarıda belirtilen sonuçlardan hareketle bazı öneriler geliştirilmiş ve aşağıda sunulmuştur.

- Yapılacak olan farklı çalışmalar ile adet JCI belgeli sağlık kurumlarında çalışan bütün çalışanların akreditasyon ve hizmet kalitesi algılarının incelenmesi önerilmektedir.
- Türkiye özelinde, SAS-Sağlıkta Akreditasyon Sistemi üzerine farkındalık vb. çalışmaların yapılması önerilmektedir.
- JCI belgesine sahip olan ve olmayan sağlık kurumları örnekleminde yöneticiler akreditasyon ve hizmet kalitesi algılarının karşılaştırılmalı olarak incelenmesi önerilmektedir.
- JCI belgesine sahip olan ve olmayan sağlık kurumlarından hizmet alanların akreditasyon ve hizmet kalitesi algılarının karşılaştırılmalı olarak incelenmesi önerilmektedir.
- Birçok yönetim yaklaşımında olduğu gibi, kalite ve akreditasyon konusunda da başarı için "Üst Yönetimin Liderliği" önem arz etmektedir. Çalışmada ortaya çıkan sonuçlar doğrultusunda, sağlık kurumları yöneticilerinin liderlik özellikleri yönünden geliştirilmesi önerilmektedir.

Extended Abstract

Being healthy and receiving healthcare in line with that is considered a fundamental human right in all countries around the world. The healthcare services provided within a broad spectrum, encompassing the entire human population, include preserving the existing level of health, improving deteriorated health, and enhancing health. With the changing and evolving times, the increasing expectations of patients or clients, the strengthening of communication networks, the growing awareness, and the patient profile that can question their rights related to health more effectively have driven service providers to strive for excellence in this field.

In some literature, authors interpret quality as the "level of compliance with conditions," while others define

it as the "ability to satisfy a specific requirement of a product or service" (Yatkın, 2004). In healthcare institutions, service quality is expressed as the "degree of conformity or perfection of various elements within healthcare services to predefined standards" (Güven and Bektaş, 2011).

Accreditation has developed as a result of the standardized, objective need for information about healthcare institutions. Virtually all accreditation programs are voluntary. Organizations seek accreditation for various reasons. However, the majority do so to increase market share, gain customer satisfaction, and establish professional credibility (Al-Assaf and Akgün, 2020).

In an academic study conducted by Tabrizi (2011) in this field, the research revealed that the most frequently cited program, with 91% citation rate, was the US-based JCI (Joint Commission International). JCI aims to develop and maintain international standards for healthcare quality and patient safety. In Türkiye, healthcare institutions span a wide range in terms of number, clientele, and services provided. As of November 2021, there are 35 healthcare institutions in Türkiye accredited by JCI (https://www.jointcommissioninternational.org/).

The research study's study group is composed of 289 healthcare organization managers in executive positions within these hospitals. Among these 35 healthcare institutions, a total of 750 individuals work in such positions, and the study reached out to 289 of them. Descriptive statistics such as arithmetic mean, standard deviation, frequency, and percentage distribution were used for analyzing research data. Confirmatory Factor Analysis (CFA) was utilized to examine the construct validity of the scales, while Cronbach's Alpha coefficient was considered for assessing the reliability of the scales. Finally, Structural Equation Modeling (SEM) was employed to test the research hypotheses. IBM SPSS 23.0 and IBM AMOS 23.0 software packages were used for implementing these statistical techniques.

When examining the frequency distributions of the demographic characteristics of the healthcare institution managers comprising the research sample, it can be observed that 42.9% of the managers are female, while 57.1% are male. As for the age distribution of healthcare institution managers, 8% fall within the 20-29 age range, 21% are aged 30-39, 38% are aged 40-49, and 33% are aged 50 and above.

Considering the educational level of the study group, 3% of healthcare institution managers have completed high school, 7% have completed an associate degree, 12% hold a doctorate, 31% have a master's degree, and 47% have a bachelor's degree.

Firstly, a model was constructed for the Leadership, Commitment, and Support scale, which consists of nine items and a single dimension, and Confirmatory Factor Analysis (CFA) was applied. As a result of the analysis, the fit index values for the model were calculated as χ^2 /df=4.826, GFI=0.921, NFI=0.953, IFI=0.962, CFI=0.962, and RMSEA=0.078. Based on these values, the model of the Leadership, Commitment, and Support scale demonstrates a good level of fit according to the GFI, NFI, and IFI fit indices, and an acceptable level of fit based on the χ^2 /df, CFI, and RMSEA fit indices.

Upon examining the responses of participants to the statements of the Leadership, Commitment, and Support Scale, it was found that all statements scored 4,00 and above. The statement to which participants most strongly agreed in this scale is "Top management is the driving force in quality improvement," with a score of 4.08±0.92 Overall, when analyzing all statements in this scale, it can be said that participants perceive high levels of leadership, commitment, and support.

When looking at participants' responses to the statements of the "Strategic Quality Planning" scale, it was found that all statements scored 3.93 and above. The statement to which participants most strongly agreed in the "Strategic Quality Planning" scale is "Managers participate in the development of quality improvement plans," with a score of 4.07±0.97 Overall, when analyzing all statements in this scale, it can be said that participants perceive high levels of leadership, commitment, and support.

When examining the responses to the statements of the "Training and Education" sub-dimension within the "Human Resource Utilization" scale, it can be observed that three statements scored above 3.96±0.96. The statement to which participants agreed most in this subdimension is "Managers are provided with training and education on how to determine quality improvement opportunities based on recommendations following accreditation audits and how to act accordingly," with a score of 3.97±0.93. When examining the responses to the statements of the "Training and Education" subdimension within the "Human Resource Utilization" scale, it can be seen that three statements scored above 3.79±1.04. The statement to which participants agreed most in this sub-dimension is "The hospital has an effective system for managers to provide recommendations to the management on how to increase quality," with a score of 3.99±0.96. When analyzing participants' responses to the statements of the "Quality Management" scale, it was found that all statements scored 3.97 and above. The statement to which participants most strongly agreed in this dimension is "The hospital regularly inspects equipment and materials to ensure that quality requirements are met," with a score of 4.08±0.93.

Finally, when looking at participants' responses to the statements of the "Data Utilization" scale, it was found that all statements scored 3.97 and above. Overall, it can be said that participants perceive high levels of understanding regarding this scale. The statement to which participants most strongly agreed in the "Quality Management" scale is "Patient complaints are examined to identify and learn from the same problems to prevent their recurrence," with a score of 4.07±1.01. When examining participants' responses to the "Employee Involvement" sub-dimension within the "Accreditation"

scale, it was found that all statements scored 4.02 and above, indicating that participants perceive high levels of employee involvement. Similarly, when analyzing participants' responses to the "Benefits of Accreditation" sub-dimension within the "Accreditation" scale, it was found that all statements scored 4.03 and above, further indicating high perceptions of employee involvement. The statement to which participants most strongly agreed in this dimension is "Accreditation allows the hospital to respond better to the needs of the community," with a score of 4.16±0.88.

When examining participants' responses to the statements of the "Quality Results" scale, it was found that all statements scored 3.97 and above. The statement to which participants most strongly agreed on this scale is "Despite financial constraints, the hospital has continued to provide high-quality healthcare services over the past few years," with a score of 4.09±0.88. When evaluating the scores participants assigned to the statements of the quality results scale, it can be said that their perceptions are high. Similar to our findings, the study by Doğan and Kaya (2004) also revealed that healthcare managers support quality.

Kaynakça

- AL-Assaf, Af ve Akgün, Seval (2020). "Sağlık Hizmetlerinde Kalite ve Akreditasyon: Kavramlar ve Tarihsel Gelişim", Ed.: Hasan Güler, Sağlık Hizmetlerinde Kalite Sağlık Politikaları 2, İstanbul: İstanbul Medipol Üniversitesi Sağlık Sistemleri ve Politikaları Uygulama ve Araştırma Merkezi Yayınları, 9-24.
- Arslan, Aysel ve Bardakçı, Said (2020). "Üniversite Öğrencilerinin Dijital Bağımlılık Düzeylerinin İletişim Becerileri Üzerindeki Etkisinin İncelenmesi". *Gençlik Araştırmaları Dergisi*, 8(20): 36-63.
- Aygar Hatice ve Önsüz M. Fatih (2017). *Sağlık Hizmetlerinde Kalite Yönetimi*, Estüdam Halk Sağlığı Dergisi, 2(1): 25-32.
- Aytuğ Kanber, Nurhan, Gürlek, Öznur, Çiçek, Himmet ve Gözlükaya, Ayşe (2010). Bir Sağlık Kurumunda Sağlık Çalışanlarının Memnuniyeti . Sağlıkta Performans ve Kalite Dergisi, 2 (2), 114-126.
- Çağatay, Altuğ ve Öztürk, Zekai (2021). Sağlık Kurumlarındaki Yöneticilerin Stratejik Yönetim Araçları Kullanım Görüşleri, Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi, 22 (2), 1-29
- Çepni, Selden (2019). "Sağlık Hizmetlerinde ISO Temelli Kalite Yönetim Sistemlerinin Karşılaştırılması", (Ed.: Keziban Avcı), Sağlıkta Kalite Yönetimi Güncel Konular ve Stratejik Yaklaşımlar, Ankara: Gazi Kitabevi.
- Değermen, Hatice Anıl (2005). *Hizmet Ürünlerinde Kalite, Müşteri Tatmini ve Sadakati,* İstanbul: Türkmen Kitapevi.
- Doğan Songül ve Kaya Sıdıka (2004). Aksaray'daki Sağlık Bakanlığı Hastane Yöneticilerinin Toplam Kalite Yönetimi Konusundaki Algıları, Hacettepe Sağlık İdaresi Dergisi, 7(1), 66-83

- Demirbilek, Sevda ve Çolak, Murat (2008). *Sağlık Hizmetlerinde Kalite: Manisa İli Örneği,* Kafkas Üniversitesi Sosyal Bilimler Enstitü Dergisi, 1 (2), 91-111
- Donabedian, Avedis (1988). "The Quality of Care: How Can It be Assessed?", *Jama*, 260 (12), 1743-1748.
- Donahue, Tina ve Vanostenberg, Paul (2000). "Joint Commission International Accreditation: Relationship To Four Models of Evaluation", *International journal for quality in health care*, 12(3): 243-246.
- Gök, Gülhan (2023). Sağlık Hizmetlerinde Liderlik ve Toksik Liderliğin Çok Yönlü Analizi, Ankara, İKSAD Yayınları.
- Greer, Charles, R., Lusch, Robert, F., Vargo, Stephen, L. (2016). "A Service Perspective", Organizational Dynamics, 1(45): 28-38.
- Gülmez, Mustafa ve Kitapcı, Olgun (2008). Hastanelerde Hasta Tatmin Düzeylerinin Ölçümü, Karşılaştırmalı İki Hastane Örneği, Sivas: Cumhuriyet Üniversitesi Yayınları.
- Gümüş, Sefer ve Tütüncü, Mert (2012). Hizmet, Hizmet Pazarlaması, Türkiye'de Bireysel Emeklilik Sistemi ve Pazarlama Stratejileri, İstanbul: Hiperlink Yayınları.
- Güven, Ebru Özlem ve Bektaş, Nezaket (2011). "Sağlık Kurumlarında Hizmet Kalitesi ve Önemi: SERVQUAL Ölçeği İle Beklenen ve Algılanan Hizmet Kalitesi Ölçümü", Ed.: Onur Yarar, Selma Söyük, Bildiri, 9. Ulusal Sağlık Kuruluşları Yönetimi Kongresi, 26-29 Mayıs 2011, KKTC: 275-294.
- Hayran, Osman (2012). *Sağlık Yönetimi Yazıları*, Ankara: SAGEYA Yayınları.
- Jonah C., Pardillo (2019). Service Operations Management, Canada: Society Publishing.
- Karagöz, Yalçın (2016). Bilimsel Araştırma Teknikler ve Yayın Etiği, Ankara: Nobel Akademik Yayıncılık
- Karagöz, Yalçın (2019). SPSS-AMOS-META Uygulamalı İstatistiksel Analizler, Ankara: Nobel Akademik Yayıncılık.
- Kayral, Halil İbrahim, Kavak, Demet Gökmen ve Cengiz, Canan (2018). "Sağlık Politikalarında Kalite ve Akreditasyonun Yeri", Ed.: Dilaver Tengilimoğlu, *Sağlık Politikası*, Ankara: Nobel Yayıncılık, 357-390.
- Korkmaz, Sezer, Eser, Zeliha ve Öztürk, Sevgi Ayşe (2017). *Pazarlama Kavramlar-İlkeler-Kararlar*, Ankara, Siyasal Kitabevi.
- Lovelock, Christopher H. ve Patterson, Paul (2015). Services Marketing an Asia and Australian Perspective, Melbourne: Pearson Ausrtalia

- Marşap, Akın (2014). Sağlık İşletmelerinde Kalite Sağlıkta Kaliteşim Sistemi ve Sağlıkta Mükemmellikte Süreklilik, İstanbul: Beta Yayınevi.
- Mehta, Ambar, Goldstein, Seth D. ve Makary, Martin A. (2017). "Global Trends in Center Accreditation by The Joint Commission International: Growing Patient Implications For International Medical and Surgical Care", Journal of travel medicine, 24(5): 1-4.
- Örs, Hüsniye (2007). *Hizmet Pazarlama Etkinliği ve Kalite*, Ankara: Gazi Kitabevi.
- Öztürk, Sevgi Ayşe (2019). Hizmet Pazarlaması Kuram, Uygulama ve Örnekler, Bursa: Ekin Yayınları.
- Rao, Rama Moahana (2011). *Services Marketing*, New Delhi: Pearson.
- Sağlık Bakanlığı Sağlıkta Kalite, Akreditasyon ve Çalışan Hakları Dairesi Başkanlığı (2020). *Sağlıkta Kalite Standartları Hastane*, (Sürüm 6.1).
- Sarp, Nilgün (2017). *Toplam Kalite Yönetimi Uygulamaları,* Ankara, Siyasal Kitabevi.
- Şahin, Derya (2020). "JCI Akreditasyonu ile Türkiye' de Sağlık Hizmetlerinin Kalite ve Akreditasyonuyla İlgili Kuruluşların Çalışmalarına İlişkin Araştırma", Sağlıkta Kalite ve Akreditasyon Dergisi, 3(1): 16-26.
- Şimşir, İsmail (2019). "Sağlık Hizmetlerinde Dış Değerlendirme ve Akreditasyon", (Ed.: Umut Beylik, Keziban Avcı), Sağlıkta Kalite Yönetimi ve Akreditasyon, Ankara: Gazi Kitabevi.
- Sunter, Minenur (2019). Sağlık Kurumlarında İnsan Kaynakları Yönetiminin Önemi, Verimlilik Dergisi, (3), 143-160
- Uluslararası Bileşik Komisyon Hastaneler için Akreditasyon Standartları-2002.
- Uluslararası Bileşik Komisyon Hastaneler için Akreditasyon Standartları-2020.
- Yatkın, Ahmet (2004). *Toplam Kalite Yönetimi*, Ankara: Nobel Yayıncılık.
- Yıldız, Ahmet (2010). Akreditasyon Belgesine Sahip Bir Hastanede Çalışan Hemşirelerin Akreditasyonun Hizmet Kalitesine Etkisi Hakkındaki Algıları. Hacettepe Üniversitesi Sağlık Bilimleri Enstitüsü, Sağlık Kurumları Yönetimi Yüksek Lisans Tezi, Ankara.

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Empirical Analysis of the Impact of Institutional Quality on Ecological Footprint: Example of E7 Countries

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One of the indispensable conditions for sustainable development is minimi	
History caused by economic growth. Countries whose primary goal is economic growth production. To reduce the damage to the environment, which is difficult to regrowth simultaneously, the structure of the institutions that countries hat institutions serve as the leading actors in determining and implementing polic the possible impact of two critical variables, institutional quality, and renew footprint, which is one of the measurement methods of environmental damage	harm the environment with their reverse, and to ensure economic ive is essential. Because quality cies. The study aims to determine wable energy use, on ecological
<i>Jel Codes: Q42, Q48, Q56</i> <i>Jel Codes: Q42, Q48, Q56</i> <i>Jel Codes: Q42, Q48, Q56</i> <i>Jel Codes: Q42, Q48, Q56</i> <i>Guartile method uses the institutional quality, renewable energy consumption</i> <i>and GDP per capita data of E7 countries for the period 2002-2018. The analysis between institutional quality, renewable energy consumption, and ecologinstitutional rate and renewable energy consumption decreases the environ</i> <i>variables, a positive relationship was found between GDP per capita, exponincrease in GDP per capita and exports increases the environmental footprint recommendations that countries can implement are listed.</i>	Non-Aggregate Fixed Effect Panel on, ecological footprint, exports, sis reveals a negative relationship gical footprint. The increase in nmental footprint. Among other rts, and ecological footprint. An

Keywords: Environmental Sustainability, Institutional Quality, Ecological Footprint, E7 Countries

Kurumsal Kalitenin Ekolojik Ayak İzi Üzerine Etkisinin Ampirik Analizi: E7 Ülkeleri Örneği

...

	ÖZ
	Sürdürülebilir kalkınma için olmazsa olmaz şartların başında ekonomik büyümenin çevreye verdiği zararın en aza
Süreç	indirilmesi gelmektedir. Öncelikli hedefi ekonomik büyüme olan ülkeler yapmış oldukları üretim ile çevreye zarar
	vermektedir. Çevreye verilen ve geri dönüşü zor olan zararların azaltılması ve aynı zamanda ekonomik
Geliş: 31/07/2023	büyümenin de sağlanabilmesi için ülkelerin sahip oldukları kurumların yapısı önem arz etmektedir. Çünkü kaliteli
Kabul: 04/10/2023	kurumlar politikaların belirlenmesinde ve uygulanmasında baş aktör olarak görev yapmaktadır. Çalışma ile
	sürdürülebilir kalkınma kapsamında kurumsal kalite ve yenilenebilir enerji kullanımı gibi iki önemli değişkenin
	çevresel zararın ölçüm yöntemlerinden olan ekolojik ayak izi üzerindeki olası etkisinin tespiti amaçlanmaktadır.
	Bunun için ise özelikle gelişmekte olan ülkelerden Gelişen 7 Ekonomi (E7) olarak isimlendirilen Çin, Brezilya,
	Hindistan, Endonezya, Meksika, Rusya ve Türkiye analize dâhil edilmiştir. Çalışmada E7 ülkelerinin 2002-2018 dönemi kurumsal kalite, yenilenebilir enerji tüketim, ekolojik ayak izi, ihracat ve kişi başına düşen GSYİH verileri
Jel Kodları: Q42, Q48, Q56	kullanılarak Toplamsal Olmayan Sabit Etkili Panel Kantil yöntemi kullanılmıştır. Analizde kurumsal kalite ve
	yenilenebilir enerji tüketimi ile ekolojik ayak izi arasında negatif bir ilişki tespit edilmiştir. Kurumsal kalitenin ve
	yenilenebilir enerji tüketiminin artması ekolojik ayak izini azaltmaktadır. Diğer değişkenlerden olan kişi başına
	düzen GSYİH ve ihracat ile ekolojik ayak izi arasında ise pozitif bir ilişki tespit edilmiştir. Kişi başına düşen GSYİH
Constitution	ve ihracat oranlarındaki artış ekolojik ayak izini artırmaktadır. Bu sonuçlardan yola çıkarak ülkelerin
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	Anahtar Kelimeler: Çevresel Sürdürülebilirlik, Kurumsal Kalite, Ekolojik Ayak İzi, E7 Ülkeleri
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Giriş

Küresel ısınmanın artık dünyanın her bölgesindeki olumsuz etkilerinin gözlemlenmesine paralel olarak iklim değişikliği ve çevre kirliliği gibi sorunlara dünya çapında araştırmacıların, ekonomistlerin ve politika yapıcıların dikkatlerini bu yöne yöneltmesine neden olmuştur. Çünkü açığa çıkan olumsuz sonuçlar başta insan sağlığı ve ekosistem için ciddi tehditler oluşturmaktadır (Yan ve ark... 2021: 421). Artan ekonomik büvüme düzevi ve gelişmekte olan ülkelerin yüksek nüfusu enerji talebini artırmasıyla birlikte doğal kaynaklar üzerinde baskı oluşturarak hem kaynakların azalmasına hem de doğal kaynakların kullanımı sonucunda sera gazı salınımının artmasına yol açmaktadır. Üretim için gerekli olan enerjinin %70 gibi büyük oranda fosil yakıtlardan karşılanması çevre sorunlarını gündeme getirmektedir (IEA, 2020). Bu tablo aynı zamanda Birleşmiş Milletler tarafından oluşturulan ve 2030 yılına kadar Sürdürülebilir Kalkınma Hedefleri (SKG) içinde yer alan refaha ulaşma, yoksulluğu ortadan kaldırma ve çevreyi korumaya yönelik küresel çabaları engelleme riskini açığa çıkarmaktadır (Zhang ve ark.., 2022: 1).

Enerji kullanımı ve hükümetler tarafından uygulanılması istenen koruma politikalarının ekonomik faaliyeti nasıl etkilediği konusu, sürdürülebilir kalkınma ve özellikle iklim değişikliği ve sera gazı emisyonlarının azaltılması konusundaki küresel tartışmalar da büyük ilgi görmektedir (Adams ve ark.., 2016: 36). Küresel ısınma hızının düşürülmesi ihtiyacı ve çevre sorunlarına çözüm önerme ihtiyacı çevreciler, enerji uzmanları ve iktisatçılar da dâhil olmak üzere toplumun her kesiminden birçok literatürün ortaya çıkmasına neden olmuştur (Udemba, 2020: 26818).

Büyüme ve gelişme açısından ekonomik ivmenin sürdürülebilirliği ile çevrenin korunması arasındaki dengenin sağlanabilmesi hem çevreciler hem de politika yapıcılar için büyük bir endişe kaynağı haline gelmiştir. Çünkü politika yapıcılar için ekonomik büyüme bir prestij kaynağı gibi görülmektedir ve bu amaca ulaşmak adına çevresel kaygıların göz ardı edilmesi çok sık rastlanan bir durumdur. İnsan faaliyetleri, sosyal, ekonomik ve politik unsurlar çevresel bozulmanın ana kaynağını iken minimum çevresel bozulma hedeflenerek büyüme sürdürülebilirliği, çevresel sürdürülebilirlik ve teknolojik yenilikler hayata geçirilmelidir (Udemba, 2020: 26818-26821). Kyoto ve Montreal Protokolleri, Stockholm Konferansı ve Paris Anlaşması gibi girişimler daha temiz bir çevre için sera gazlarını azaltılması ve dünyanın daha yaşanabilir bir iklim yapısını korumayı hedeflemektedir. Söz konusu anlaşmalara imza atarak ortak olan ülkeler araştırmacılar ve politika yapıcılar aracılığı ile eylem planları oluşturarak bu planları uygulamaya çalışmaktadır. Bu noktada düzenleyici ve kurumsal çalışma bir ülkenin çevresel ve ekonomik ilerlemesini etkilemektedir (Houran ve Mehmood, 2023: 2-4).

Ülkenin sahip olduğu kurumsal kalite, bu girişimlerin etkin olabilmesi için önem arz etmektedir. Sorumlu kurumlar uygulanan politikaları denetleyerek hükümetlerin otorite etkinliğini ve politikaların devamlılığının sağlanmasına etki edebilmektedir. Kurumsal kalite esasen hükümetlerin etkinliği ve istikrarlı yapısının da bir göstergesi olduğu için sadece çevre değil ekonomi, hukuk ve sosyal alandaki ülkenin sahip olduğu önemli konularda etkili bir yönetişim anlayışını da sağlamaktadır (Saidi ve ark.., 2019: 262). Kurumsal kalite aynı zamanda kurumların çevresel yeterliliğini de yansıtır. Yolsuzluktan arınmış kurumlar kalitelidir ve uygulanan politikaların etkinlik düzeylerini pozitif olarak desteklemektedir. Bir ekonomide sağlam ve kaliteli çevre politikaları, cevre kalitesinin iyilestirilmesi için temel belirleyici faktörlerden biri olabilir. Bu nedenle politikaları belirleyen ve uygulayan kaliteli kurumlar, küresel ekonomideki cevresel tehdidin azaltılmasına vardımcı olacak güçlü mevzuatı sağlamak için girdiler olarak değerlendirilmelidir (Lau ve ark.., 2014: 277).

Sürdürülebilir bir çevre yolunda etkili yenilenebilir enerji politikalarının uygulanması, sağlam bir kurumsal çerçeve gerektirir. İdari ve kurumsal ortamlar çevre politikalarını yalnızca politika oluşturma düzeyinde değil aynı zamanda uygulama ve izleme düzeyinde de etkinleştirerek desteklemektedir. Sürdürülebilir kalkınmanın önündeki engel yetersiz kaynaklar değil, yetersiz kurumlardır. Yeterli ve kaliteli kurumlar, hükümetlerin tasarladıkları politikalarla formüle edilen ve çevresel düzenleyici çerçevede yer alan yapısını ve etkinliğini yansıtmaktadır (Christoforidis ve Katrakilidis, 2021: 53889).

Hükümet istikrarı, kurumların niteliksel performansı ve dolayısıyla üretken çevre yönetimi için çok önemlidir. Hükümet istikrarının göstergesi olan etkili kurumlar, halka güven duygusu aşılayarak kurumsal şeffaflık ve hesap verebilirlik ortamını oluşturur. Kurumlar, şirketlerin ilgili çevre standartlarına uyumunu kontrol etme potansiyeline sahip sağlam mevzuatın eşlik ettiği güçlü bir hukuk devletini desteklemektedir. Bu yönü ile kurumlar çevresel maliyeti en aza indirerek daha yüksek ekonomik büyüme sağlamada etkilidir (Lau ve ark.., 2014: 276).

Yetersiz kurumlar ve politikalar, tükenen doğal kaynakların kullanıldıkları hızda değiştirilememesi nedeniyle biyolojik kapasitede bir düşüşe yol açmaktadır. Hesap verebilirlik ve şeffaflıktan yoksun kurumlar gücün kötüye kullanılmasına ve potansiyel olumsuz ekolojik etkilere neden olabilmektedir. Yetersiz kurumlar çevresel olarak sürdürülebilir tüketim, üretim ve ticaret hedeflerine daha fazla önem vermemektedir (Rudolph ve Figge, 2017: 350). Çünkü yetersiz kurumların varlığında kamu görevlileri sürdürülebilir çevre politikalarının ve düzenlemeleri uygulamakta esnek yapıları ile olumsuz sonuçlara yol açabilmektedir (Fredriksson ve ark.., 2004: 214). Uzun vadede bir ülkenin kurumsal kalitesinin artırılması doğal kaynakları kontrol etme, yenilenebilir enerji üretimi ve kullanımı için verimli ve yasal olarak uyumlu bir altyapının cevrevi temizleme olusturmasıyla kapasitesini de geliştirmektedir (Houran ve Mehmood, 2023: 9). Zayıf kurumlara sahip ülkeler genellikle enerji endüstrisini daha temiz enerjiye doğru geliştiremezler ve çevrenin kalitesini sürdürülebilir kalkınma hedefleri doğrultusunda kontrol edemezler (Rafei ve ark.., 2022: 2).

Son yıllarda artan enerji tüketimi, doğal kaynak kullanımı ile birlikte bir de çevresel zararı artıran uluslararası ticareti ön plana çıkmıştır. Ülkenin üretim süreci ve üretimde kullandığı teknolojisi, ihracat yapısı ve üretim verimliliğinin artması beraberinde çevrenin olumsuz etkilenmesine yol açmaktadır. Son on yılda hızlı ekonomik kalkınmanın doğrudan bir etkisi, küresel enerji talebinde ve tüketiminde önemli bir artış olmuştur. Bu durum bir enerji krizinin yanı sıra bir çevre krizi potansiyeline de sahiptir. Yenilenebilir ve temiz enerji arayısı enerji sıkıntısı ceken ülkelerin savunduğu yeni enerji politikası haline gelmiştir (Chang ve Wang, 2017: 195).

Yenilenebilir enerji üretimi ve kullanımını tesvik etmek hem üretim maliyetlerini azaltmakta hem de sürdürülebilir çevre için etkili bir değişkendir (Chang ve Wang, 2017: 193). Enerji altyapısını ve yenilenebilir enerji tüketimini teşvik etmeyi amaçlayan hükümetlerin, yeni enerji projelerinde kurumsal iyileştirme ile daha iyi bir politika geliştirmeleri gerekmektedir (Wu ve Broadstock, 2015: 35). Çünkü kurumlar ulusal yenilenebilir enerji üretimi ve kullanım planına uygun olarak bilim ve teknoloji alanlarında enerji geliştirme ve kullanımına öncelik vererek teknik araştırmaları desteklemek için fon sağlayarak yenilenebilir enerji endüstrisinin gelişimini yönlendirmekten sorumlu ve etkilidir (Chang ve Wang, 2017: 193).

Cevresel bozulmayı ölcmek için kapsamlı bir değişken olan Ekolojik Ayak İzi (EF) Endeksi kullanılmaktadır. Endeks ayrıca iklimsel sürdürülebilirliği ölçmek için en iyi göstergelerden bir tanesidir. Çünkü EF geleneksel çevresel göstergeleri daha geniş bir ekolojik sürdürülebilirlik perspektifine doğru genişletmektedir. Bu indeks dünyanın yenilenme kapasitesini, biyolojik kapasitesini ve insan faaliyetlerinin dünya üzerindeki etkilerini ölçmektedir. İnsan faaliyetleri biyolojik kapasite üzerinde baskı oluşturarak ülkelerin sahip olduğu ekolojik ayak izlerini arttırmaktadır. Bu çevre sorununu azaltmak için ülkeler sosyo-ekonomik faaliyetlerini kontrol altında tutmak için bir dizi politika uygulamak zorunda kalmaktadır (Houran ve Mehmood, 2023: 5; Christoforidis ve Katrakilidis, 2021: 53891). Ekolojik ayak izi, doğal kaynakların yaygın kullanımı üzerindeki insan başkışını ölçer ve kökeni klasik sürdürülebilirlik ilkesine dayanmaktadır. Bu ilkeye göre, doğal kaynakların tüketimi yenilenme oranını geçmemelidir (Khan ve ark.., 2020: 2).

EF doğal kaynakların kazılması (madencilik ve petrol arama), ekonomik faaliyetler, tarımsal faaliyetler, inşaat, ormansızlaştırma, kentsel altyapı ve ulaşım alanları dâhil edilerek ölçülmektedir. EF karbon ayak izi, meskûn arazi, tarım arazisi, otlak arazisi, orman arazisi ve balıkçılık alanları olmak üzere altı bileşenin toplamından oluşmaktadır. EF birçok kaynak stokunu dikkate aldığından ekonomik faaliyetlerin sürdürülebilirliği ve çevresel çöküşün kontrol altına alınmasında çevresel kalitenin ve politika önlemlerinin modellenmesinin dikkate alınmasında daha etkili olmaktadır (Udemba, 2020: 26819). EF, politika yapıcılar için kolay bir izleme aracıdır ve her yıl sürdürülebilir kaynak kullanımı için gereken biyolojik olarak üretken alanı temsil eden küresel hektar cinsinden ölçülmektedir (Christoforidis ve Katrakilidis, 2021: 53891).

ABD Enerji Bilgi İdaresi (EIA) gelişmekte olan ülkelerin emisyonlarının 2040 yılına kadar CO_2 gelişmiş ekonomilerdeki emisyonlardan %127 daha yüksek olacağının tahmin etmektedir. Bu tahmin doğrultusunda gelişmekte olan ülkeler kapsamında çalışma tasarlanmıştır. Çalışmanın amacı iklim değişikliği karşında Gelişen 7 Ekonomi (E7) olarak isimlendirilen Çin, Brezilya, Hindistan, Endonezya, Meksika, Rusya ve Türkiye'nin 2002-2018 döneminde sahip olduğu kurumların yürütmüş olduğu çevre politikalarının etkinliğini temsilen kurum kalitesi ile venilebilir enerji tüketiminin söz konusu ülkelerin ekolojik ayak izi üzerindeki etkisini analiz etmektir. Bunun için çalışmada ilk olarak, konu ile ilgili teorik cerceve olusturulmustur. İkinci bölümde, literatür özetine yer verilecektir. Üçüncü bölümde, veri seti ve yöntem hakkında bilgi verilerek dördüncü bölümde ampirik bulgular açıklanacaktır. Sonuç kısmında, analiz ile ilgili elde edilen bulgular değerlendirilecek ve önerilerde bulunulacaktır.

Literatür Özeti

Literatürde yapılan çalışmaların bir kısmı incelendiğinde genel olarak gelişmekte olan kısmen de gelişmiş ülkelerin analize dâhil edilerek kururum kalitesi ve çevresel bozulma ilişkisinin araştırıldığı görülmüştür. Çalışmalarda incelenen ülke ve ülke gruplarının kurum kalitesinin çevresel bozulma arasında pozitif ve anlamlı sonuçlar elde edilmiştir. Konu ile ilgili literatürün bir kısmının yer aldığı bölümde kurumsal kalite ile çevresel bozulmanın bir ölçüsü olan ekolojik ayak izi ilişkisini tespit etmek için kullanılan farklı değişkenler ile yapılan çalışmalarının çerçevesi belirlenmeye amaçlanmıştır.

Tamazian ve Rao (2010) yaptıkları çalışmada 24 geçiş ekonomisinde Çevresel Kuznets Eğrisi'nin geçerliliğini 1993-2004 dönemi kişi başına düşen CO₂ emisyonu, kişi başına düşen GSYİH, enflasyon, doğrudan yabancı yatırım verileri kullanarak analiz etmiştir. Panel veri analizi ile kurumsal kalitenin çevre korumayı desteklediğini, finansal serbestleşmenin ise yalnızca güçlü kurumların varlığında çevre üzerinde olumlu bir etki yarattığı sonucuna ulaşmışlardır.

Lau ve ark.. (2014) çalışmalarında 1984-2008 dönemi için Malezya'daki kaliteli kurumların ve CO₂ emisyonlarının ekonomik büyüme üzerindeki etkisini analiz etmiştir. Analiz ile kurumsal kalite, CO₂ emisyonları ve ihracat değişkenlerinin ekonomik büyüme üzerinde olumlu ve önemli bir etkiye sahip olduğu sonucu elde edilmiştir. Kalite kurumlarının CO₂ emisyonlarının etkili bir şekilde azaltılması için çalışabileceği ve böylece ekonomik kalkınmayı iyileştirirken çevresel kaliteyi artırabileceği söz konusudur.

Abid (2017) çalışmasında 1990-2011 dönemi için 58 MEA (Orta Doğu ve Afrika) ve 41 AB (Avrupa Birliği) ülkesi için Çevresel Kuznets Eğrisi'nin (EKC) geçerliliğini test etmiştir. Kurumsal kalitenin (kamu harcamalarının etkinliği, finansal gelişme, ticari açıklık ve doğrudan yabancı yatırım) ve gelir-emisyon ilişkisinin doğrudan ve dolaylı etkilerini incelemiştir. Hem MEA hem de AB'de kurum kalitesi ve CO₂ emisyonları ile arasında artan bir ilişki tespit edilmiştir.

Bhattacharya ve ark.. (2017) yapmış oldukları çalışmalarında 85 gelişmiş ve gelişmekte olan ülkenin 1991-2012 dönemi verilerini kullanarak ekonomik büyüme ve CO₂ emisyonlarıyla mücadelede yenilenebilir enerji tüketimi ve kurumlarının rolünü analiz etmiştir. Kurumların ve yenilenebilir enerji tüketiminin ekonomik büyüme üzerinde olumlu etkisi ve CO₂ emisyonlarını azaltıcı etkisi vardır. Ayrıca hem yenilenebilir enerji dağıtımının hem de kurumların ekonomik büyümeyi teşvik etmede ve CO₂ emisyonlarını azaltmada önemli olduğunu sonucu elde edilmiştir.

Sabir ve ark.. (2020) çalışmalarında 1970-2010 dönemi Güney Asya ülkelerinin sahip olduğu kurumsal kalitenin doğrudan yabancı yatırım ve çevresel bozulma arasındaki ilişkiyi analiz etmiştir. Panel ARDL ve Granger nedensellik testleri yapılarak DYY'nin çevresel bozulma üzerinde pozitif ve istatistiksel olarak anlamlı bir etki, kurumsal kaliteyi temsilen seçilen hukukun üstünlüğü değişkeni ekolojik ayak izi üzerinde önemsiz bir etki, yolsuzluğun çevresel bozulmayı arttırdığı sonucu elde etmiştir. Çalışma aynı zamanda Güney Asya ülkeleri için çevresel Kuznets Eğrisi'ni (EKC) desteklemektedir.

Christoforidis ve Katrakilidis (2021) çalışmalarında 29 OECD ülkesinin 1984-2016 dönemi ekolojik ayak izi, kişi başına düşen GSYİH, yenilenebilir enerji tüketimi, yenilenebilir enerji dışı tüketim ve kurumsal kalite verilerini kullanarak panel veri analizi yapmıştır. Kurum kalitesinin ekolojik ayak izi ile pozitif, yenilenebilir enerji tüketiminin ekolojik ayak izi ile negatif ilişkili olduğu sonucunu elde etmişlerdir.

Yao ve ark.. (2021) çalışmasında BRICS ülkeleri ve Nextülkelerinin finansal gelişim, enerji verimliliği, 11 yolsuzluğun kontrolü ve ekolojik ayak izi arasındaki ilişkiyi incelemiştir. DEA yöntemi kullanılarak, BRICS ve N-11ülkelerinin enerji verimliliğini tahmin etmek için analiz yapılmıştır. Yolsuzluğun kontrol altına alınması durumunda finansal gelişmenin enerji verimliliğini iyileştireceğini göstermiştir. Ayrıca bu ekonomilerde şeffaf sistemlerin varlığı ekolojik ayak izi azaltılarak çevre kalitesini iyileştirebilmektedir. Buna ek olarak yolsuzluğun enerji verimliliğini artırma ve ekolojik ayak izini azaltma olasılığının daha yüksek olduğunu göstermiştir.

Eşref ve ark.. (2022) çalışmalarında 1984-2019 döneminde Güney Asya bölgesi ülkelerinin BRI politikası ve kurumsal kalitenin ekonomik büyümeyi ve çevresel kaliteyi etkileme düzeyi panel ARDL ve Granger analiz edilmiştir. Kurumsal kalitenin ekonomik kalkınmayı arttırdığı ve CO₂ emisyonunu azaltmak için etkili olabileceği sonucu elde edilmiştir. Ekonomik büyüme enerji tüketimi, ticaret ve kurumsal kalite ile canlandırılabilir. Ekonomik büyüme için karbon salınımını azaltmak için kurumların kalitesinin artırılması gerekmektedir.

Rafei ve ark.. (2022) çalışmalarında zayıf, orta ve yüksek düzeyde kurumsal kaliteye sahip ülkelerin 1995-2017 dönemi verileni kullanarak ekonomik karmaşıklığın, doğal kaynakları, enerji tüketiminin ve doğrudan yabancı yatırımın ekolojik ayak izini nasıl etkilediğini analiz etmiştir. tüm ülkelerde ekonomik karmaşıklığın ekolojik ayak izi üzerinde olumlu bir etkiye sahip olduğunu ve ayrıca dikkate alınan değişkenler arasında ekolojik ayak izi üzerinde en büyük etkiye sahip olduğunu ortaya koymuştur. Ayrıca analizde kullanılan değişkenlerin etkisi kurumsal kalite ile doğrudan ilişkilidir.

Wang ve Yang (2022) yapmış oldukları çalışmada 78 ülkeyi 1995-2014 yeşil karmaşıklık, CO₂ emisyonu ve kurumsal kalite arasındaki ilişkiyi analiz etmiştir. Panel veri analizi yaparak daha iyi kurumsal kaliteye sahip ülkelerde CO₂ emisyonunu azaltabileceği, buna karşın yeşil karmaşıklığın arttırılmasının daha yüksek CO₂'ye neden olacağı ayrıca yeşil karmaşıklık, istikrarlı hükümet, daha iyi yatırım profili, sıkı yasalar ve daha iyi bürokrasi kalitesi olan ülkelerde CO₂ emisyonunu baskılanabilir sonucunu elde etmiştir.

Houran ve Mehmood (2023) N-11 ülkeleri olan Bangladeş, Endonezya, Filipinler, Güney Kore, İran, Meksika, Mısır, Nijerya, Pakistan, Türkiye ve Vietnam'ın 1995-2018 dönemi ekolojik ayak izi, doğal kaynaklar, kurum kalitesi, ekolojik karmaşıklık, yenilenebilir enerji, doğrudan yabancı yatırım gibi değişkenleri kullanırak panel verileri CS-ARDL yaklaşımı kullanılarak analiz yapmışlardır. Ekonomik karmaşıklık ve DYY'ın diğer değişkenlerden daha güçlü olarak çevresel bozulmayı etkilediği ayrıca doğal kaynak kullanımı, kurum kalitesi, yenilenebilir enerji düzeyinin ekolojik ayak izini azaltıcı etki yaratma potansiyelinin olduğu sonucuna ulaşılmıştır.

Yapılan bu çalışmalarla kurumsal kalitenin ekolojik ayak izine etkisini tespit edebilmek için farklı değişkenler eklenmiştir. Literatürde yer alan çalışmalardan sadece bir kısmının yer aldığı bu çalışmanın bu kısmında kurumsal kalitenin ekolojik ayak izi üzerine olası etkisi bilimsel olarak ortaya konmuştur.

Literatürdeki çalışmalardan bazıları olan Houran ve Mehmood (2023), Wang ve Yang (2022), Rafei ve ark.. (2022), Eşref ve ark.. (2022), Yao ve ark.. (2021), Christoforidis ve Katrakilidis (2021), Sabir ve ark.. (2020), Bhattacharya ve ark.. (2017), Abid (2017), Lau ve ark.. (2014), Tamazian ve Rao (2010)'da kurumsal kalitenin yenilenebilir enerji kullanımını ve önemli çevre politikaları geliştirip uygulanmasında etkili olduğu tespit edilmiştir. Böylelikle faaliyetler sonucunda CO₂ emisyonunu azaltarak çevre kirliliğinin ölçümü için kullanılan ekolojik ayak izinin azaltılmasına yol açmaktadır.

Veri Seti ve Yöntem

Çalışma yüksek büyüme oranlarına sahip olan E7 ülkeleri olan Çin, Brezilya, Endonezya, Hindistan, Meksika, Rusya ve Türkiye'de yenilenebilir enerji tüketimi ve kurumsal kalitenin ekolojik ayak izi ilişkisi analiz edilecektir. Veri seti ilgili ülke grubunun 2002-2018 dönemi verileri kullanılarak oluşturulmuştur. Kurumsal kaliteyi temsilen seçilen hükümet etkinliği verileri kullanılmıştır. Hükümet etkinliği, yenilenebilir enerji tüketimi, ihracat ve kişi başına düşen GSYİH verileri Dünya Bankası veri tabanından ve Ekolojik Ayak İzi verisi ise Global Footprint Network veri tabanından elde edilmiştir.

Çalışma kapsamında analiz yöntemi olarak 2016 yılında Powell tarafından geliştirilen ve güncel bir yöntem olan Toplamsal Olmayan Sabit Etkili Panel Kantil yöntemi kullanılmıştır. Bu yöntem, $U_{it}^* = f(\alpha_i+U_{it})$ şeklinde sabit etkileri de içerecek şekilde gösterilmektedir. Toplamsal olmayan sabit etkili panel kantil yöntemi önemli avantajlara sahiptir. T küçük olması durumunda bile bu yöntemle tutarlı tahminler gerçekleştirilebilmektedir. Ayrıca bu metodoloji, açıklayıcı değişkenlerin bağımlı değişken üzerindeki heterojen etkileri de net bir şekilde ortaya koyabilmektedir (Powell, 2016). Toplamsal olmayan sabit etkili panel kantil metodu, hata terimlerinin normal dağılımını dikkate almayan sağlam bir regresyon tahmincisi olarak nitelendirilmektedir (Chen ve Wei, 2005). Kısaca ifade etmek gerekirse, bu güncel metodun geleneksel ortalama regresyona göre daha kusursuz ve eksiksiz bir yöntem olduğu dile getirilebilir (Yu ve ark., 2003). Bu özelliği ile toplamsal olmayan sabit etkili panel kantil metodu analiz için özellikle tercih edilmiştir.

Tablo 2'de yer alan değişkenlerin özet istatistikleri ve yine Şekil 1'deki Kernel Yoğunluk fonksiyonu grafikleri bir arada değerlendirildiğinde EFP ve EXP değişkenleri dışındaki değişkenlerin %5 hata düzeyine göre normal dağılım göstermediği ve uç değerler barındırdığı tespit edilmiştir. Bu durumda EKK tahmincilerinin sapmalı olduğu bilinen bir durumdur. Bu nedenden dolayı EKK tahmincilerinin yerine Kantil regresyon tahminlerinin kullanılması gerekmektedir (Güriş ve Sak, 2019; Acar ve Topdağ, 2022). Şekil 2 ise değişkenlerin kantillere göre dağılımlarını belirtmektedir.

Table 1: Variables and Data Sources		
Değişkenler	Sembol	Kaynak
Yenilenebilir Enerji Tüketimi	REC	WDI
Hükümet Etkinliği	GI	WDI
Kişi Başına Düşen GSYİH	GDP	WDI
İhracat	EXP	WDI
Ekolojik Ayak İzi	EF	Global Footprint Network

Çizelge 2: Tanımlayıcı İstatistikler

Cizelge 1: Değişkenler ve Veri Kaynakları

Table 2: Descriptive Statistics

	Ortalama	Medyan	Min.	Maks.	Std. Hata	Eğiklik	Basıklık	Jarque Bera (Prob)
EF	1,648067	1,64	0,44	3,45	0,7742019	0,5586097	2,797203	5,93(0,0515)
Gİ	41,98025	47,12	4,69	68,88	19,57314	-0,7002843	2,142077	15,11*(0,0005)
REC	22,82143	15,34	3,18	48,92	15,49107	0,3232231	1,529263	179,60*(0,0000)
GDPG	6401,192	7648,33	793,1	11938,78	3251,753	-0,4378081	1,695686	56,75*(0,0000)
EXP *: %5'e gö	24,40824 re dağılımın norı	24,53 mal olduğunu l	10,85 belirten sıf	39,26 Ir hipotezinin re	6,758215 ddini işaret etme	-0,1367974 ^{ktedir.}	2,473813	2,24 (0,3267)





Figure 2: Distribution by Cantiles



Şekil 3: GI-EFP Serpilme Diyagramı Figure 3: GI-EFP Scatter diagram

Çizelge 3: Analiz Tahmin Sonuçları
Table 3: Analysis Estimation Results

Kantil	EF	Katsayı	Std. Hata	Z	Olasılık Değeri	% 95 Güven Aralıkları	
0,25	GI	-0,103736	0,0000129	-801,93	0,000***	-0,0103989	-0,0103482
	REC	-0,0024993	0,0000172	-145,50	0,000***	-0,0025329	-0,0024656
	GDPG	0,0001246	1,54e-07	810,57	0,000***	0,0001243	0,0001249
	EXP	-0,0144876	0,0000562	-257,90	0,000***	-0,0145977	-0,0143775
0,50	GI	-0,01174	4,49e-06	-2613,72	0,000***	-0,0117488	-0,0117312
	REC	-0,0034412	0,0000134	-256,85	0,000***	-0,0034674	-0,0034149
	GDPG	0,0001391	2,28e-08	6094,21	0,000**	0,000139	0,0001391
	EXP	-0,0130094	0,0000202	-645,44	0,000***	-0,013049	-0,0129699
0,75	GI	-0,013142	0,0000201	-655,02	0,000***	-0,0131814	-0,0131027
	REC	-0,0208455	0,0000163	-1277,53	0,000***	-0,0208775	-0,0208135
	GDPG	0,0001629	8,90e-08	1831,64	0,000***	0,0001628	0,0001631
	EXP	-0,0077293	0,0000203	-380,53	0,000***	-0,0077691	-0,0076895
		*, **, *** SI	rasıyla %10, %5	ve %1 anlaml	ılık düzeyini belirtme	ektedir.	

Şekil 3 ise E-7 ülkeleri için hükümet etkinliği ve ekolojik ayak izi değişkenlerinin hangi değerlerde ne derece yoğunlaştığını işaret eden serpilme diyagramı yer almaktadır.

Tablo 3 ise hükümet etkinliğinin ekolojik ayak izine etkisini araştırma amacıyla yapılan toplamsal olmayan sabit etkili panel kantil regresyon yöntemine dair bulgular yer almaktadır. Yine REC-EFP, GDP-EFP ve EXP-EFP değişkenleri arasındaki ilişkiye dair bulgular da Tablo 3'de yer almaktadır.

E-7 ülkelerinde toplamsal olmayan sabit etkili panel kantil modeli kapsamında ulaşılan bulgulara regresvon bakıldığında tüm kantiller için E-7 ülkeleri için hükümet etkinliği arttıkca ekolojik avak izinin azaldığı görülmektedir. 25. kantil düzeyindeki ülkelerde parametre -0.103736, 50. kantilde -0,01174 ve 75. kantilde ise -0,013142 dir. İki değişken arasında negatif yönlü ilişki tespit edilmiştir. REC ve EF değişkenleri arasında ise tüm kantiller için negatif yönlü ilişkiye rastlanmıştır. 25. kantil için parametre -0,0024993, 50. kantil için -0,0034412 ve 75. kantil için ise -0,0208455 tir. Kişi başına düşen GSYİH ile ekolojik ayak izi arasındaki ilişki incelendiğinde ise E-7 ülkelerinde tüm kantiller için kişi başına düşen GSYİH arttıkça ekolojik ayak izinin arttığı görülmektedir. 25. kantilde parametre 0,0001246, 50. kantilde 0,0001391 ve 75. kantilde ise 0,0001629'dur. EXP ve EF değişkenleri arasındaki ilişkiye bakıldığında ise tüm kantillerde pozitif yönlü iliskinin varlığına rastlandığı gözlemlenmektedir. 25. kantil için parametre -0,0144876, 50. Kantil için -0,0130094 ve 75. Kantil için ise -0,0077293'tür.

Sonuç ve Öneriler

Ülkelerin ekonomik büyüme hedefleri yüksek üretim ve yüksek doğal kaynak kullanımını beraberinde getirmiştir. Doğal kaynak kullanımının artması, çevreye verilen zararın boyutunu arttırarak çevre kirliliğinin bir göstergesi olan Ekolojik Ayak İzi'nin de artmasına yol açmıştır. Böyle bir sonucun sürdürülebilir çevre politikaları için aksi bir durum oluşturması çözüm için elzem olan değişimlerin hayata geçirilmesini gerekli kılmıştır. Bu noktada kaliteli ve uygun politikaların geliştirilip kararlı şekilde uygulanmaya konulması ön plana çıkmıştır. Kaliteli kurumların varlığı ülkede uygulanacak ekonomik ve çevre politikaları için önem arz etmektedir. Kurum kalitesini temsilen ifade edilen hükümet etkinliği çevreye verilecek olan zararın minimize edilebilmesi ve Ekolojik Ayak İzi'nin azaltılabilmesi için gerekli olan adımların atılmasını sağlamaktadır. Hükümet etkinliği gerek doğal kaynak kullanımını azaltarak yenilenebilir enerji tüketimini teşvik etme gerek diğer yasal prosedürlerin hayata geçirilmesi için önemli roller üstlenmektedir.

Çalışmada iklim değişikliği karşında Gelişen 7 Ekonomi (E7) olarak isimlendirilen Çin, Brezilya, Hindistan, Endonezya, Meksika, Rusya ve Türkiye'nin 2002-2018 döneminde sahip olduğu kurumların yürütmüş olduğu çevre politikalarının etkinliğini temsilen kurum kalitesi ile yenilebilir enerji tüketiminin söz konusu ülkelerin ekolojik ayak izi üzerindeki etkisi analiz edilmiştir. Analizde E-7 ülkeleri için kurumsal kaliteyi temsilen seçilen hükümet etkinliği ile ekolojik ayak izi arasında negatif yönlü ilişki tespit edilmiştir. E7 ülkelerinde kurumsal kalite arttıkça ekolojik ayak izinin azaldığı görülmektedir. Yenilenebilir enerji tüketimi ile ekolojik ayak izi arasında negatif yönlü bir ilişki tespit edilmiştir. Yenilenebilir enerji tüketimi arttıkça ekolojik ayak izi azalmaktadır. Kişi başına düşen GSYİH arttıkça ekolojik ayak izi arasında yine pozitif bir ilişki tespit edilmiştir. E7 Ülkelerinin yaptığı ihracat oranları arttıkça ekolojik ayak izi artmaktadır.

Çalışma ile elde edilen bulgular literatürde yer alan Houran ve Mehmood (2023), Wang ve Yang (2022), Rafei ve ark.. (2022), Eşref ve ark.. (2022), Yao ve ark.. (2021), Christoforidis ve Katrakilidis (2021), Sabir ve ark.. (2020), Bhattacharya ve ark.. (2017), Abid (2017), Lau ve ark.. (2014), Tamazian ve Rao (2010) gibi çalışmalarla benzer sonuçlara sahiptir.

Bu sonuçlardan hareket edilerek bir takım öneriler sıralanmıştır. Yapılan önerilerin gelişmekte olan ülkelerin genelinde uygulanabilir olduğunu hemen belirtmekte yarar görülmektedir.

Günümüzde ekonomiler ve insan sağlığı, iklim değişikliğinin şiddetli etkileriyle karşı karşıyadır. Bu sorunlar, insanların değişen yaşam tarzlarından ve ekonomilerin yapılarından ve doğal kaynak çıkarımından kaynaklanmaktadır. İnsan faaliyetleri dünyanın biyolojik kapasitesi üzerindeki baskıyı artırmaktadır. Yapılan çalışmalar temiz bir çevre için iyileştirilmiş bir kurumsal yapının gerekli olduğunu doğrulamaktadır. Geliştirilmiş kurum kalitesi, verimli cevre politikasında şeffaflık sağlayarak, yolsuzluk uygulamaları durdurur ve kurumlar tarafından sıkı çevre düzenlemeleri rahatlıkla uygulanabilmektedir. Ülkelerin sahip olduğu zayıf kurumsal yapı şeffaflık eksikliği, yozlaşmış bir ortam ve hukuk endeksindeki düşüş ile tanınmaktadır. Bahsi geçen noktaların iyileştirilmesi kurumsal kaliteyi arttıracaktır. Hükümet, enerji sektörü reformlarında başarılı olmak ve yenilenebilir enerjinin kilit belirleyicilerinden biri olan büyümeden en yüksek faydayı elde etmek için kurumsal kaliteyi zorunlu olarak iyileştirmelidir. Geliştirilmiş kurumsal yapı verimli çevre politikasında şeffaflık sağlar. Yolsuzluk uygulamaları durdurulur ve kurumlar tarafından sıkı çevre düzenlemeleri uygulanır.

Çevre kirliliğini azaltmak adına geliştirilecek politikalar, hem ekonomik performansın hem de iyi çevresel performansın sürdürülmesine odaklanmalıdır. Bunun için düşük karbonlu enerji kaynaklarına uygulanan vergiler azaltılarak, yüksek kirlilik yayan enerji kaynakları üzerindeki vergiler arttırılmalıdır. Daha temiz ve yenilenebilir enerji kaynakları ekolojik ayak izini azaltmada ve dolayısıyla küresel kirlilik sorununu çözmede çok yararlı olmaktadır. Hükümetler çevre dostu enerji kaynaklarını desteklemelidir. Dolayısıyla yenilenebilir enerji kaynaklarını ihraç ürün kalitesinin daha da iyileştirilmesinde ve çevresel bozulmanın kontrol altına alınmasında kilit rol oynamaktadır. Bu nedenle yatırımcıları yenilenebilir enerji için en son altyapıları ve teknolojileri finanse ederek temiz enerjiye yatırım yapmaya teşvik etmek ve motive etmek

önemlidir. Gelişmiş ve gelişmekte olan ülkelerde gelir düzeylerinin ve toplam enerii tüketiminin belirlenmesinde, teknoloji ve bilgi yoğun ürün üretimi ve ihracat kalitesi çok önemli bir rol oynamaktadır. Gelişmekte olan ülkeler enerji sektörlerini dönüştürebilecek ve çevresel sürdürülebilirlik yönünde yönlendirebilecek politikalar benimsemelidir. Ayrıca çevre dostu teknoloji ve temiz enerji altyapıları inşa etmek ve temiz bir endüstri modeline geçmek için Ar-Ge faaliyetleri geliştirilmelidir. Yeşil teknolojiye yapılan yatırımlar finanse edilmelidir. Bütün bu adımlar atılırken kurumsal kalitenin artırılmasına bağlı olarak yasa koyucular stratejik girişimleri de desteklemelidir. Böylelikle ülkeler ekonomik hedefine ulasmak icin calışırken aynı zamanda cevresel performansını iyileştirme sürecini de geliştirebilmelidir.

Ülkelerin kaliteli kurumlar aracılığı ile sürdürülebilir çevre için gerekli altyapıyı oluşturması, yatırımcıları çekmesi ve Ar-Ge yoluyla karbonsuz teknoloji ve bilgideki ilerlemeleri desteklemesi gerekmektedir. Ülkeler ayrıca bilgi birikimlerini artırmak, yeni fikirlerin gelişimini teşvik etmek, yüksek eğitimli insan sermayesinin birikimini kolaylaştırmak ve yenilikçi yeşil ürünler ve teknoloji girişimleri başlatmak için çalışmalıdır. Ek olarak tüketicileri daha çevre dostu mal ve hizmet talep etmeleri konusunda eğitmek ve bilinçlendirmek, yeşil tüketiciliğe geçişi hızlandırmak için çok önemlidir. Bütün bunları yaparken de ulusal politikaları daha iyi şekillendirmek ve yürütmek için ulusal kurumları güçlendirilmelidir.

Çevresel bozulmanın beşeri sermaye ile azaltılacağı ve finansal büyümenin beşeri sermaye yoluyla çevresel kaliteyi artıracağı düşünülmektedir. Bu nedenle, gelişmekte olan ülkeler, EF'yi azaltacak bir beşeri sermayeyi beslemek için bir plan oluşturmak üzere sağlık ve eğitim sektörlerine mali kaynak ayırmaya öncelik vermelidir. Bu arada, gelişmekte olan ülkeler, insan kaynakları yönetimi stratejilerini iyileştirmeli ve devam eden çevresel bozulma sorununu ele almak için kapsamlı bir yetenek tedarik zinciri oluşturmalıdır.

Extended Abstract

Empirical Analysis of the Impact of Institutional Quality on Ecological Footprint: Example of E7 Countries

Achieving the balance between the sustainability of the economic momentum in terms of growth and development and the protection of the environment has become a major concern for both environmentalists and policymakers. Because economic growth is seen as a source of prestige for policy makers, it is widespread to ignore environmental problems to achieve this goal. While human activities, social, economic, and political factors are the primary sources of environmental degradation, growth sustainability, environmental sustainability and technological innovations should be implemented by targeting minimum ecological degradation.

Institutional quality reflects the environmental competence of institutions. The corruption-free institutions are of high quality and positively support the

effectiveness of the policies implemented. Sound and quality ecological policies in an economy can be one of the main factors for improving environmental quality. Therefore, quality institutions that set and enforce policies should be considered as inputs to provide sound legislation that, when implemented effectively, will help reduce the environmental threat to the global economy. Inadequate institutions and policies lead to a decline in biocapacity due to the inability to replace depleted natural resources as guickly as they are used. Ineffective institutions are not more important to environmentally sustainable consumption, production, and trade targets. Because in the presence of insufficient institutions, public officials can lead to negative results with their flexible structures in implementing sustainable environmental policies and regulations. In the long run, improving a country's institutional quality also enhances its capacity to control natural resources and clean up the environment by creating an efficient and legally compliant infrastructure for renewable energy production and use.

In recent years, increasing energy consumption, use of natural resources, and international trade, which also increases environmental damage, have come to the fore. Encouraging the production and use of renewable energy reduces production costs and is an influential variable for a sustainable environment. Governments aiming to promote energy infrastructure and renewable energy consumption need to develop better policies with institutional improvement in new energy projects because institutions are responsible for driving the development of the renewable energy industry by providing funds to support technical research by prioritizing energy development and use in the fields of science and technology by the national renewable energy development and use plan.

A comprehensive Ecological Footprint (EF) Index measures environmental degradation. The index is also one of the best indicators to measure climatic expands sustainability. Because EF traditional environmental indicators into a broader ecological sustainability perspective, this index measures the earth's regenerative capacity, biological capacity, and the effects of human activities on the planet. Human activities increase countries' ecological footprint by putting pressure on physical ability. To reduce this environmental problem, governments must implement a series of policies to keep their socio-economic activities under control.

The study aims to represent the effectiveness of the environmental policies carried out by the institutions owned by China, Brazil, India, Indonesia, Mexico, Russia, and Türkiye in the 2002-2018 period, which are called the 7 Emerging Economies (E7) in the face of climate change, with the quality of the institution and the renewable energy consumption of the countries in question. To analyze the impact on the ecological footprint. For this, in the model in which environmental footprint is chosen as the dependent variable, government efficiency and renewable energy consumption, per capita GDP, and exports are included in the analysis as independent variables. After the theoretical background, the literature was searched, the data set and the method, econometric analysis were given and the findings obtained as a result of the study were interpreted.

The analysis shows that the Ecological Footprint decreases as the Government Activity selected to represent the institutional quality for the E-7 countries increases. A negative relationship was found between the two variables. A negative relationship was found between renewable energy consumption and Ecological Footprint. As renewable energy consumption rises, the Ecological Footprint decreases. It is seen that the Ecological Footprint increases as the GDP per capita increases. Again, a positive relationship was found between export rates and Ecological Footprint. As the export rates of the country increase, the Ecological Footprint increases.

The findings are that institutional quality and the use of renewable energy reduce the ecological footprint. The results obtained with the study were reported by Houran and Mehmood (2023), Wang and Yang (2022), Rafei et al. (2022), Esref et al. (2022), Yao et al. (2021), Christoforidis and Katrakilidis (2021), Sabir et al. (2020), Bhattacharya et al. (2017), Abid (2017), Lau et al. (2014) have similar results with studies such as Tamazian and Rao (2010).

Accordingly, increasing institutional quality confirms that an improved institutional structure is necessary for a clean environment. Improved corporate quality, by providing transparency in efficient environmental policy, stops corrupt practices, and strict environmental regulations can be easily applied by institutions. The weak institutional structure of the countries is known for the need for more transparency, a corrupt environment, and the decrease in the legal index. Improving the mentioned points will increase institutional quality. Government officials in countries must necessarily improve institutional quality to be successful in energy sector reforms and to reap the most significant benefits from growth, of which renewable energy will be one of the key determinants. Improved institutional structure provides transparency in efficient environmental policy. Corruption practices are stopped and institutions enforce strict environmental regulations. Countries need to create the necessary infrastructure for a sustainable environment through quality institutions, attract investors and support advances in carbon-free technology and knowledge through R&D. Countries should also work to increase their knowledge, encourage the development of new ideas, facilitate the accumulation of highly educated human capital, and launch innovative green products and technology initiatives. Additionally, educating and raising awareness among consumers to demand more environmentally friendly goods and services is crucial to accelerating the transition to green consumerism. While doing all this, national institutions should be strengthened to better shape and execute national policies. Countries should adopt policies that steer their energy sectors towards transformation and environmental sustainability. In addition, R&D activities should be developed to build environment-friendly technology and clean energy infrastructures and to move to a clean industry model. Investments in green technology must be financed. While all these steps are being taken, strategic initiatives are also presented to the legislators depending on increasing the institutional quality. Thus, while trying to achieve its economic goal, the country should also develop the process of improving its environmental performance. It is useful in reducing the ecological footprint of cleaner and renewable energy sources, thus solving the global pollution problem. It should support environmentally friendly energy sources. Therefore, renewable energy sources play a crucial role in further improving export product quality and controlling environmental degradation. Consequently, it is essential to encourage and motivate investors to invest in clean energy by financing cutting-edge infrastructures and technologies for renewable energy. Technology and knowledgeintensive product production and export quality are essential in determining income levels and total energy consumption in developed and developing countries.

Kaynakça

- Acar, T. & Topdağ, D. (2022). OECD ülkelerinde sefalet endeksi ve ekonomik kalkınma ekseninde sağlık harcamalarının belirleyicileri: toplamsal olmayan sabit etkili panel kantil regresyon yaklaşımı. Sosyal Siyaset Konferansları Dergisi. 82: 267-286. https://doi.org/ 10.26650/jspc.2022.82.946640.
- Abid, M. (2017). Do economic, financial and institutional developments matter for environmental quality? A comparative analysis of EU and MEA countries. *Journal of Environmental Management*, 188, 183-194.
- Adams, S., Klobodu, E. K. M. & Opoku, E. E. O. (2016). Energy consumption, political regime and economic growth in Subsaharan Africa. *Energy Policy*, 96, 36-44.
- Bhattacharya, M. Churchill, S.A. & Paramati, S.R. (2017). The dynamic impact of renewable energy and institutions on economic output and CO₂ emissions across regio. *Renewable Energy*, 111, 157-167.
- Chang, Y. C., & Wang, N. (2017). Legal system for the development of marine renewable energy in China. *Renewable and Sustainable Energy Reviews*, 75, 192-196.
- Chen, C. & Wei, Y. (2005). Computational Issues for Quantile Regression. Special Issue on Quantile Regression and Related Methods. *The Indian Journal of Statistics*. 67(2): 399-417. doi: 10.2307/i25053424
- Christoforidis, T. & Katrakilidis, C. (2021). The dynamic role of institutional quality, renewable and non-renewable energy on the ecological footprint of OECD countries: do institutions and renewables function as leverage points for environmental sustainability?. *Environmental Science and Pollution Research*, 28, 53888-53907.
- Eşref, C. Luo, L. & Anser, M. H. (2022). Do BRI policy and institutional quality influence economic growth and environmental quality? An empirical analysis from South Asian countries affiliated with the Belt and Road Initiative. *Environ Sci Pollut Res Int*, 29(6). 8438-8451.
- Fredriksson P.G, Vollebergh H.R.J & Dijkgraaf, E. (2004). Corruption and energy efficiency in OECD countries: Theory and evidence. *J Environ Econ Manag*, 47(2), 207-231.

- Güriş, S. & Şak, N. (2019). Çevresel Kuznets Eğrisi Hipotezinin Toplamsal Olmayan Sabit Etkili Panel Kantil Yöntemiyle İncelenmesi. *Business Econ Res J* 10(2):327–340.
- Houran, M., A. & Mehmood, O. (2023). How institutional quality and renewable energy interact with ecological footprints: Do the human capital and economic complexity matter in the next eleven nations?. *Environmental Science and Pollution Research*, 1-14.
- IEA (2020) World Energy Outlook 2020-Analysis IEA. https:// www.iea.org/reports/world-energy-outlook-2020 (Erişim Tarihi: 21.05.2023).
- Khan, A. Chenggang, Y. Hussain, J. Bano, S. & Nawaz, A. (2020). Natural resources, tourism development, and energygrowth-CO2 emission nexus: A simultaneity modeling analysis of BRI countries. *Resources Policy*, 68, 101751.
- Lau L.S, Choong C.K & Eng Y.K. (2014). Carbon dioxide emission, institutional quality and economic growth: Empirical evidence in Malaysia. *Renew Energy*, 68, 276-281.
- Powell, D. 2016. Quantile regression with nonadditive fixed effects||. Unpublished paper.https://works.bepress.com/ david powell/1/ (05.07.2023 tarihinde erişilmiştir.)
- Rafei M. Esmaeili. P. & Lorente, D. (2022). A step towards environmental mitigation: How do economic complexity and natural resources matter? Focusing on diferent institutional quality level countries. Resour Policy 78, 102848
- Rudolph, A. & Figge, L. (2017). Determinants of ecological footprints: What is the role of globalization? *Ecol Indic*, 81, 348-361.
- Sabir. S, Qayyum, U & Majeed, T. (2020). FDI and environmental degradation: the role of political institutions in South Asian countries. *Environ Sci Pollut Res*, 27. 32544-32553
- Saidi H, El Montasser, G. & Ajmi, A.,N. (2019). The role of institutions in the renewable energy-growth nexus in the MENA region: A Panel cointegration approach. *Environ Model Assess*, 252(25), 259-276.
- Tamazian. A & Bhaskara, R.B. (2010). Do economic, financial and institutional developments matter for environmental degradation? evidence from transitional economies. *Energy Econ*, 32, 137-145.

- Udemba, E., N. (2020). Mediation of foreign direct investment and agriculture towards ecological footprint: A Shift from single perspective to a more inclusive perspective for India. *Environmental Science and Pollution Research*, 27, 26817-26834.
- Yan, Y., Shah, M.,I., Sharma, G.,D., Chopra, R., Fareed, Z. & Sehzad, O. (2021) Can tourism sustain itself through the pandemic: Nexus between tourism, COVID-19 cases and air quality spread in the 'Pineapple State' Hawaii. *Curr Issues Tour*, 25, 421-440.
- Yao, X. Yasmeen, R. Hussain, J. & Hassan Shah, W.U. (2021). The repercussions of financial development and corruption on energy efciency and ecological footprint: Evidence from BRICS and NEXT 11 countries. Energy 223, 120063
- Wang, E.Z & Yang, M. (2022). Green complexity and CO₂ emission: Does institutional quality matter? *Energy Econ*, 110, 106022.
- Wu, L., & Broadstock, D., C. (2015). Does economic, financial and institutional development matter for renewable energy consumption? Evidence from emerging economies. *International Journal of Economic Policy in Emerging Economies*, 8(1), 20-39.
- Yu, K., Lu, Z. & Stander, J. (2003). Quantile regression: applications and current research areas. *Journal of the Royal Statistical Society: Series D* (The Statistician). 52: 331-350. doi: 10.1111/1467-9884.00363
- Zhang, C., Khan, I., Dagar, V., Saeed, A. & Zafar, M., W. (2022). Environmental impact of information and communication technology: Unveiling the role of education in developing countries. *Technol Forecast Soc Change*, 178, 1-11.
- 20.06.2023 tarihinde www.footprintnetwork.org adresinden ulaşılmıştır.
- 21.06.2023 tarihinde_https://databank.worldbank.org adresinden ulaşılmıştır.
- 21.06.2023 tarihinde_http://info.worldbank.org/governance/ wgi/ adresinden ulaşılmıştır.



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Rethinking State-Law Relations Through the Kelsen-Schmitt Debate: A Critical Introduction

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Research Article	ABSTRACT
	This article examines state-law relations in modern states by comparing the ideas of Carl Schmitt and Hans
History	Kelsen. In this context, the article will first discuss what modern law is and from where its differences emerge.
	Next, the article will examine Hans Kelsen's conceptualization of Grundnorm [basic norm], which formed
Received: 28/07/2023	constitutions in modern states, as a source of legitimacy in the modern state. The article compares the state-law
Accepted: 03/10/2023	relationship that Kelsen constructed upon the basis of his Pure Theory of Law to Carl Schmitt's consideration of
	law as the decision of the sovereign. Although Kelsen accepted law as a thing-in-itself and intensified his efforts
	to build an objective science, juridical science presents a legitimacy in factual order, despite this not being
	Kelsen's goal. Kelsen, however, neglected what is political and failed to examine the appearance of factual
	order/law within the practical social order and their relationship. On the other hand, Schmitt's emphasis on
	sovereignty as the constituent will and unique source of legitimacy did not get much closer to Kelsen's approach
	to constructing law with Grundnorm. With regard to the political and political unity, Schmitt's approach was
	based on factual order by defining the law in terms of the extraordinary decision of the sovereign as a being
	identical to the society/people. This article's approach to understanding the modern state attaches importance
	both to Kelsen's emphasis on juridical science as well as equivalent value to the notion of sovereignty that
	Schmitt had rightfully developed. The last section of this article argues that the state-law relationship in modern
	states emerged through both Grundnorm and sovereignty as a partnership of both.

Keywords: Grundnorm, Sovereignty, Pure Theory of Law, Decisionism

Kelsen-Schmitt Tartışması Aracılığıyla Devlet-Hukuk İlişkisini Yeniden Düşünmek: Eleştirel Bir Giriş

Süreç

Geliş: 28/07/2023 Kabul: 03/10/2023 ÖZ

Bu makale, modern devlette hukuk-devlet iliskisini Carl Schmitt ve Hans Kelsen'in fikirlerini mukavese ederek incelemektedir. Bu bağlamda, önce modern hukukun ne olduğunu, feodal dönemden farklarının hangi noktalarda ortaya çıktığını tartışmaktadır. Ardından, Hans Kelsen'in modern devlette anayasayı ve normlar hiyerarşisini yaratan 'Grundnorm' kavramsallaştırması, modern devlette meşruiyet kaynağı olarak incelenmektedir. Kelsen, hukuku politik olandan ayrıştırarak, Kantçı anlamda 'kendinde şey olarak hukuk' anlayışını savunmaktadır. Hukuku politik, tarihsel ve kültürel olandan ayrıştırarak onun otonom bir alanda yaratıldığını (ya da yaratılması gerektiğini) ileri sürmektedir. Burada Kelsen'in politik olanın önemini ıskalamış olduğu, olgusal düzenin ya da hukukun pratik sosyal düzendeki görünümü ve ilişkilerini incelemeyi yadsıdığı iddia edilmektedir. Diğer taraftan Schmitt ise, modern devletin kurucu iradesi ve tek meşruiyet kaynağı olan egemenliğe yaptığı vurgu ile Kelsen'in davet ettiği güzergaha --hukukun Grundnorm'la inşasına- pek vanasmamıstır. Schmitt politik olan ve politik birlik üzerinden, hukuku toplumla/halkla özdes olan egemenin olağanüstü haldeki 'karar'ı üzerinden tanımlayarak olgusal düzeni baz almıştır. Bu çalışmada modern devletin anlaşılabilmesi için kabul edilen yaklaşım ise, hem Kelsen'in hukuk bilimine yaptığı vurguyu önemsemekte hem de Schmitt'in haklı olarak gündeme getirdiği egemenlik nosyonuna eşit değer vermektedir. Daha doğrusu, modern devletin anlaşılabilmesi için mezkur iki hukuk kuramcısının da beraber okunup, hem hukuk kuramının hem de egemenlik kavramının modern devlet için vaz geçilmez olduğunu iddia etmektedir.

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Anahtar Kelimeler: Grundnorm, Egemenlik, Egemenin Kararı, Saf Hukuk Kuramı

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Introduction

The notion of society, which defines the modern coexistence of people, necessitates the notions of state and law. The existence of society having a certain order is based solely on the existence of laws and a state. The social contract has been defined with different nuances by Thomas Hobbes, John Locke, and J. J. Rousseau in modern political philosophy and is exposed based on this truth. However, the character of the relationship between state and law and the issue of which one is more decisive is open to debate. For this reason, many theorists who share the basic philosophical assumptions of the modern state have put forward different ideas in discussions regarding the state-law relationship.

This article examines the state-law relationship in modern states by comparing the ideas of two doctrinaires, Carl Schmitt and Hans Kelsen. While making this comparison in the article, my primary objective is to investigate the underlying mechanism of the emergence and sustainability of how legal systems function in modern states. My main argument in the article is that the relationship modern states have with law can on one hand be embodied through the notion of sovereignty, while the creation of law can on the other hand be embodied through the hierarchy of norms. In other words, the concretization and historicization of the creation of law and the notion of sovereignty depend on the simultaneous coexistence of sovereignty and a hierarchy of norms. This cannot be established on a purely theoretical basis. However, a sovereign who decides the existence of a state of emergency should not mean that he normalizes the state of emergency. The Grundnorm that is decided in a state of emergency is and should be the source of the hierarchy of norms under normal circumstances.

In the article, I will first focus on the emergence of modern law starting from the feudal period and touching upon the early modern period and then examine the emergence of the modern state and its relationship with the law. In order to do this, one must undoubtedly start by focusing on the last millennium in Western Europe. Although studying the last millennium of Western Europe and how it reveals the modern state is difficult, it will be done in three general parts. While Weber did this in his Economy and Society (Weber, 1978, p. 1085), others have taken a different approach who did not consider Ständestaat [corporative state] as a specific category or period.¹ However, in any case, the environment that shaped and nurtured the political relationship of the feudal period was the Carolingian Empire (Bloch, 2005, pp. 59-76; Le Goff, 2017, pp. 50-61). As Poggi (1978, p. 17) stated, the feudal order that had been established in these lands evolved into Ständestaat between the 12th-14th centuries, which then evolved into absolutism between the 16th-17th centuries. In the post-18th-19th centuries, absolutism was dissolved and the state of law emerged with certain changes that Poggi referred to as the "rise of civil society."

Before examining the modern meanings of law and legitimacy in this context, the feudal era must be remembered, because the legal practices during the feudal period and the understanding of law after the birth of the modern state have radical differences. Secularity and rationality are two fundamental dimensions of this radical difference. In order to understand these better, the article will first present what legal practices existed in the feudal period and then examine the epistemic assumptions of modern law and its relation to the state.

Legal Practices During the Feudal Era: Words and Customs

The point that attracts attention in all studies made regarding the legal order of the Middle Ages and the feudal era is the absence of written documents in judicial cases during these periods. Although compilations remaining from the Roman Law existed until the 9th-10th centuries alongside the statuary decrees issued by barbarian emperors, these do not coincide with daily life, because:

The most serious problem was that no book was capable of deciding everything. Whole aspects of social life—relations inside the manor, ties between man and man, in which feudalism was already foreshadowed were only very imperfectly covered by the texts, and often not at all. Thus, by the side of the written law, there already existed a zone of purely oral tradition. One of the most important characteristics of [...] the feudal regime was that this margin increased beyond all bounds, to the point where in certain countries it encroached on the whole domain of law. (Bloch, 2005, p. 109)

Whether the remnants of Roman Law or the barbaric laws of such groups as the Carolingians, the final bases for justice were the dictums that had been inherited orally. These orally conveyed customs, which consisted of traditions, represented the primary sources for regulating the entirety of social life (Le Goff, 2017, p. 362). The power of words was supported by practice and constituted the generality of law. In this context, no legal system can be mentioned as having specific borders until at least the 9th-11th centuries. Due to the variability in law, it was also flexible and malleable at a level not visible in other orders. The reason for this flexibility was the absence of the habit of keeping written records of laws or trials. The majority of courts contented themselves with oral declarations for their verdicts, and judges expected investigations to be reconducted in the case of a mistrial if the parties were still alive (Bloch, 2005, pp. 196–197). Even in agreements, writing was used to record the witnesses to the agreements. This record of witnesses to the agreement ensured that they could be summoned when liabilities

¹ See Perry Anderson, (2013), *Passages From Antiquity To Feudalism*, Verso Press.

under the agreement had to be fulfilled. Due to the agreement itself not being recorded, no written format exists that was acceptable as a direct witness.

The construction of laws was made possible through practice and repetition (orally or daily practice) rather than in writing. Memory was the sole guarantee for the oral customs and traditions that emerged when writing was not the basic reference. But just as forgetfulness can maim memory, such lawsuits can be misunderstood and conveyed erroneously. This is one reason why no one mentions any law belonging to certain borders during the feudal era.

In addition, when customs are accepted as the source of law, the law that governs the individuals is the law that their ancestors had applied customarily. Therefore, mentioning any sole customary law is impossible. Even the laws of two small rural communities that were very similar at the beginning would become entirely different from one another after a few generations unless they were fixed in writing.

An intense fragmentation was previously said to have occurred during the feudal period and ecclesiastics to have mainly used writing. Many legal matters became dependent on oral customs due to the fact that Latin, being the common language of old written legal texts, was not known outside of the church. Apart from the meanings of the concepts of customs and tradition, the basic reason this conclusion has been reached is that the majority of trials were conducted by administrators, the majority of whom were illiterate. This can be added as another reason for the weakness of written law during the feudal era.

As the *Ständestaat* order slowly took form, the need for writing and written law became widespread. The activities of those who were raised in Bologna schools during the Gregorian revolution and thereafter (Le Goff, 2017, pp. 102–103) at different locations of the European continent raised awareness of writing and popularized education on the Roman principles of law. Even the church began teaching these legal texts despite much opposition (Bloch, 2005, pp. 116–120). Therefore, just as the *homo juridicus* [legal person] was being born on one hand, so was a tool discovered for legitimizing the monarch/king on the other.

The Anthropology of Modern Law: Modern Law and Politics

There is no possibility of understanding the relationship between Law and Politics by simply knowing the precedence between them because no such thing exists. According to the points taken as references, the hierarchical character of the relationship differs; the law at times could be acknowledged as *a priori* and as the

theoretical or transcendent ground constructing politics, while at other times it was the opposite. Therefore, while studying the law-politics relationship, this study will not be interested in determining the hierarchical zero point of the relationship between them. However, another point that needs to be clarified is the definition of these disciplines. In this context, human sociability can be expressed as the common point among the definitions of politics.² All regulations concerning human sociality, whether originating from a transcendental source³ or from power relations, define politics and fall within its scope. However, when defining law or rather what is considered the legitimate law, finding similar general or common definitions is very difficult.

The answers given to the question about what law is can be divided into two basic approaches. However, one must be aware of the deficiencies in this reduction, such as viewing things too generally or underestimating their differences. This is because each approach has different explanations with many nuances. Going back to the question regarding the nature of law, these two main approaches can be ranged as: i) idealistic or ii) nonidealistic. The idealist approach is dualistic and voluntaristic in order to be self-consistent. Acknowledging that it acts with purpose is necessary for this voluntarism. Meanwhile, the non-idealist (materialist) approach is monistic and immanent (Akal, 2017, p. 25).

Idealism has a dualist structure as it conveys the material/concrete world to the ideational/abstract one. At the same time, idealism implies the wisdom and purpose of what must be. This implication also points to will, which determines the goal. The idealist approach often refers to natural law. This approach needs to be assessed at the two differing points of the theory of traditional/classical natural law and the practice of modern natural law. Traditional/classical natural law places the will that built the absolute/universal law as God or nature, whereas modern natural law places this subject as the rational man or state. The modern voluntarist positivist approach, being fundamentally opposed to religious legitimization, is thus also evaluated at this stage.

Meanwhile, materialism is considered monist as it rejects the distinction between material and immaterial fact. The idealist approach of conveying facts to ideals is unable to provide a concrete response to the question of 'what the conveyer has responded to' or 'what it is' and 'what is unrealistic to the materialist'. For the materialist who claims that the idealistic answer is metaphysical, this answer is insufficient. The perspective that gives weight to the part-sum relation without considering the abstract and the transcendent center to which the subject will be sent along with its creative will and purpose is materialist, monist, and immanent (Akal, 2017, p. 26). In other words, it represents a materialist, structuralist approach.

³ This transcendence may be any of the pagan gods or the God of monotheistic traditions, as well as the humanist, self-referential metaphysics of the natural rights fiction.

² Definitions for politics have been made in the literature by such philosophers as Plato, Aristo, Agustin, A. Thomas, Marsilius, Vitoria, Machiavelli, Spinoza, T. Hobbes, J. Locke, and Rousseau.

The monist immanent approach assumes that one and only one legal definition cannot be made due to being structural and that each different social structure defines the law differently. The approach does not accept any single reference, claim transcendental values to be universal, or a thing to be good/bad or right/wrong in and of itself. Therefore, this approach makes no mention of a constant idea of justice or an absolute morality or ethics that is valid in general. The categories in which the social world is constructed are created and shaped by people in the final analysis. Similar to culture, however, these categories also simultaneously shape people. In this context, Bourdieu's claim is meaningful, as he implies, that it is not excessive to say that the law creates the social world, as long as one remembers it was created by the social world (Bourdieu, 1986). The noteworthy aspect here is the negation of the tradition of the Enlightenment.

After Kant (1996), the Enlightenment claimed to have established its philosophical and epistemological foundations in the most stable form as rational intelligence and implies absolute and universal laws through its transcendental emphasis. Kant stated the constructive subject of the law is the rational mind through the rational construction of moral and legal laws. In other words, the rational individual can arrive at the universal/absolute rule of law and ethics through reason. Nevertheless, one should not regard Kant as the first representative of this train of thought, as Rousseau, Grotius, and Suarez (Akal, 2013) can also be mentioned as the thinkers who talked about universal law before Kant. These thinkers spoke of the universal law in the debates on natural law regarding a secular basis. However, one must keep in mind that these were also based on traditional/classical natural law discussions. The controversy over the possibility of a universal law among the proponents of classical natural law occurred between the Augustinian tradition and Thomas Aquinas before the modern period. While both approaches advocate the natural law in principle, Augustine put God as the first will and believed in the limitlessness of His will. This prescribes God as being able to create at will, including the laws that are supposed to exist in nature, and suggests that God cannot be bound by any law. However, Thomas Aquinas believed this to be impossible and argued for the possibility of arriving at the law through reason because God limits His own will to the laws He created immanent to nature and therefore God's will is both the source and limitation of natural law (Akal, 2017, pp. 92-101). In this context, from the 16th century, the central idea of natural law shifted away from the central God to the rational mind beginning in the 16th century through the tradition that followed in Thomas' footprints. Here, however, one must not fall into the idea that the high-profile dichotomy of will versus reason in the debates on the nature and source of the law is wrong at one point, for both God's will and man's intelligence have one point in common: to have a will in the creation of the law.

After mentioning these points regarding the zero point of the law and the issue of will, the article needs to touch

upon the most practical and legitimate aspect of law in the modern state. To do this, the article needs to discuss the distinctive characteristics of the modern state: legitimacy and rationality, which leads directly to Max Weber's rationality and legal opinions.

Beyond the above-mentioned natural law debates, the rationalization of law according to Weber is based on two basic assumptions: one is the separation of law and ethics, and the other is the law as a deductive and consistent system. In other words, the rationalization of the law consists of: i) the differentiations that result in the independence of the law from the ethics and ii) a predictable formalization basis going forward. Weber provides this rationalization irrespective of chronology in four ideal stages: a) the primitive, in which the law is formal and irrational, b) the traditional in which law is substantive and irrational, c) a transitional stage of natural law in which the law is substantive and rational, and d) modern law, which is formal and rational (Weber 1978, pp. 809-815, 852-855). In this case, Weber considers substantive rationality in law (which must be referred to as modern natural law) to be a pre-modern situation (Lash, 2013, p. 142).

According to Weber, the essentialist and rational law theocratic legal is found in systems (i.e., traditional/classical natural law), natural law (i.e., modern natural law), and welfare-type law aimed at social justice (i.e., volitional positivist lawyering). Such a law is essentialist in its ultimate value and is also rational to the extent that it has been systematized by academically trained church or legal scholars (Kronman, 1983, p. 78). The science of natural law, being the purest form of the value rationality for Weber, bridges the gap between traditional law and modern law. Natural law is premodern to the extent that the rules of ethics and law have not yet been separated. In addition, natural law is premodern also in the sense that it ignores a process of legal change, as it assumes a set of fixed legal principles (Lash, 2013, p. 143). Therefore, Weber was unable to defend natural law theories nor, more generally, the essentialist rational legal theories within modernity. However, the anti-Enlightenment criticism that emerged after the 1960s gave way to other struggles, and starting in the 1970s, new approaches had appeared in the metaphysics immanent to the Enlightenment as idealism. These approaches broke away from the metaphysical assumptions of natural law based on the Enlightenment and instead settled natural law into a deliberative discourse (Rawls, 1972; Dworkin, 1977). However, these new approaches can be said to follow or imitate the contractarian fiction, for the issue of rights that subjects entrust to the third party (the State) is fictive in the contractarian tradition and constitutes a zero point. In other words, similar to this zero point that was designed to get out of the speculative natural state, the boundaries of negotiation are too speculative to implement.

The point that Weber addressed and fully defended in *Economy and Society* (1978) is the legal positivism based on formal rationality. As Lash stated:

Full rationalization of the law comes about only in modern formal rationality, in which the process of intellectualization begins to question and then undercut the very rational foundations of natural law itself. Thus, modern formally rational law is characterized by a separation of law and ethics, a focus on enactment in the absence of meta-juristic principles, the clear and consistent separation of general legal rules from particular legal events that can be subsumed by those rules, and an enhanced importance for the intentions of legal actors. (Lash, 2013, p. 278)

Weber's (1978, p. 656) formally rational legal positivism assumed a "logically clear, internally consistent [*sic*] gapless system of rules, under which [*sic*] all conceivable fact situations must be capable of being logically subsumed."

Although legal positivism insists contra natural-law theory that 'the law is the commands of the state', its seamless, rational, clear, and consistent legal system must in the end be based on a fundamental norm. This norm cannot, as in natural-law theory, be rationally justified. And this norm - which serves as a guiding principle for the entire system of legal rules - can be such that the system effectively serves class or national interests. (Lash, 2013, p. 145)

Two Theorists of the Modern State: Kelsen and Schmitt

The theoretical relationship of the modern state with politics and law can be read through two theoreticians: Hans Kelsen and Carl Schmitt (2015). While Kelsen preceded law and places it in an existential center for the state, Schmitt put the political at the center and connected the existence of the modern state to this. Thus, through both Kelsen and Schmitt, one can say that the modern state cannot be understood without mentioning the concept of positive law, and of course parliament is the legislative body through which the law was created using norms and politics. In other words, law and politics as the two founding elements of the modern state are essential to the issue of legitimacy. Therefore, Kelsen's views will be examined first, followed by Schmitt's.

As a name outside of the positivist voluntarist conception of law, Hans Kelsen claimed that the law must be a pure science beyond the assumption of the natural law. In this context, the theoretical framework about either the relation between the modern state understanding and the law or the relation of the law to its internal structure is very important. In particular, the hierarchy of norms upon which constitutions are built and the establishment of the theoretical bases that make international law possible from a neo-Kantian approach makes this important. Kelsen examined the relationship that political power (i.e., state power) has with the law in the context of the constitution and entered into a productive and serious debate with Carl Schmitt, another law theorist in the 20th century. This fruitful debate took place mainly in the context of sovereignty, law, and the Constitution and has maintained its importance to the present. In this context, the study first needs to touch upon *The Pure Theory of Law*, which Kelsen (1934) had built and see how he established the state-law relation.

Constructing the Law as a Thing in Itself: The Pure Theory of Law and the State

Kelsen (1934) claimed his work, The Pure Theory of Law, to be a theory of law entirely separate from all elements of political ideology and natural sciences, to be conscious of the autonomy of the research object (i.e., law), and therefore to be a theory of law conscious of its own unique character. During the historical period in which he constructed his theory, mention must be made of a similar situation that was still going on: Legal science had been reduced, both explicitly and implicitly, almost entirely to legal policy. In other words, the law was being evaluated not based on its own autonomy but in the context of its function and the instrumental relation between it and politics (i.e., the holder of political power). Since the very beginning, Kelsen's main purpose was to raise the law to the level of a real science, a social science. His thoughts on jurisprudence were about developing the tendencies that focus on not the shape of the law itself but a cognition about it and nothing else and then placing the results from this cognition at the top of all the sciences (i.e., to approximate universal objectivity and certainty; Kelsen, 2016, p. xix). As is clear from Kelsen's words, he was speaking of a neo-Kantian certainty and universality. This claim is important for Kelsen, because he will claim this is the only legitimate way, apart from sovereignty, to make a supra-state international order possible.

Pure theory basically offers no third way besides natural law theory and legal positivism. As Kelsen (2016, p. xx) stated, pure theory is legal positivism's own critique toward positivist voluntarist law. Therefore, the primary opponents were also positivist jurists. However, the conflict led to serious debates in many circles, notably among legal positivists. Contrary to what one may initially take as the source of the conflict, the position of the jurisprudence within this debate or the consequences of it were not the primary reason. Essentially, the cause was about the relationship between law and the political, the obvious divisions between them, and the long tradition of voicing political demands on behalf of the jurisprudence being abandoned. This was such a tradition where an objective authority would be resorted to when political demands were expressed that could not be rescued from subjective ideas. Even when they appeared to have an absolute value of a religion/nation/ideology/class with purely good intent.

Kelsen's (2016, p. xxii) aim was to separate law from politics (i.e., from the state) while making the law a selfproclaimed entity. Hence, the basic criticism that had been brought was that fully excluding the theory from *the political* would also cause it to diverge from the complex and intricate tides of life (sociality) and thus make it worthless as the science. Another critique from the other side was that pure theory does not meet its own methodological requirements and means nothing more than self-expression as a certain political value. Every group of politicians, from liberal or social democrats to fascists, from capitalist statists to Bolsheviks criticized this pure theory of being political. Kelsen (2016, p. xxii-xxiii) mentioned how the theory of these criticisms is precisely pure (i.e., a politically purified and self-proclaimed principle of law).

Kelsen's pure theory of law is, in itself, the theory of positive law, not the legal system of any state. It is not an interpretation of any certain national or international legal norms. It is the general theory of law. Therefore, Kelsen's pure theory of law aims purely and simply to know the object of examination; it only means to know what the law is, seeks the answer of how to make the law, and has no concern for what needs to be done or how to do it. In other words, the pure theory of law is not concerned with the creation policy of law, as that is a direct political issue.

The Law and the Modern State

The legal system in the modern state is a seamless and interconnected system through the hierarchy of norms. This hierarchical system, which is connected to Grundnorm in the final judgment, sees the law as being in motion in a continuous process of self-renewing creation. In this dynamic system, the real function of the legal norm is assumed to be for forcing people to behave in a certain way. Once this is accepted, the ultimate point in assessing the creation of the legal norm is whom norms place under obligation as the subject of the law and who participates in its creation (i.e., whether or not the obligations occur at the subject behest or in opposition). Identifying the state's form with its constitution becomes imprisonment by recognizing that the act includes the law (Kelsen, 2016, p. 114). However, the problem of state form as a method of legal creation cannot come only at the constitutional level; therefore, the problem does not merely refer to the constitution. On the contrary, it emerges in all dimensions; especially in the process of extracting singular norms.

The creation of singular norms in modern law is built upon the distinction between private and public law. Private law represents an equal legal relationship between subjects who are at equal levels. In the case of public law, the relation is represented between two subjects (i.e., the subject and the subjected), one of whom is legally superior to the another. A typical Public-Law relationship occurs between the state and its citizens. Private legal relations are also defined as legal relations in a narrow sense by placing them across from public law relations as power/sovereign relations. Thus, the distinction between private and public law constitutes an opposition between law and power (e.g., non-legal or semi-legal power), particularly between the law and the state. The typical relationship of public law involves the normative, obligatory administrative directives issued by an administrative body of the state, while the typical relationship of private law involves legal transactions, contracts in particular. Parties are legally obliged to treat each other a certain way in a mutually exclusive manner. However, the critical difference is that, while parties contribute equally to the creation of norms in contracts, the administrative directives of public law receive no contributions from the party subject to the obligation (Kelsen, 2016, pp. 115-116). Kelsen's pure theory of law transforms the oppositions between private and public law as well as the opposition between the absolute and constant non-system of traditional law into an opposition internal to the system. Thus, the opposition emerges from being something absolute to something that is relative. Presenting the antagonism of betting as an absolute contradiction between law and power (or law and state power) creates an illusion in the field of public law. This is the illusion that the field of public law (i.e., constitutional and administrative law and their particular political importance) cannot be at the same level as the field of private law. Namely, the field of public law is regarded as the real scope of the law. The legal limitations in the field of private law cannot possibly be the same as those in public law, because public law acquires a legal identity independent from the law due to state and public interests. Thus, in the case of an exception, the realization of the state goal can exceed the law. According to Kelsen (2016, pp. 118-119), the paradox is that the existential landscape of the state represents a jurisdiction independent from the law. The restrictions placed by written ordinances, despite their current state, can neglect all rights when necessary, and this tendency exists not only in autocracies but also in democracies and monarchies.

Providing an absolute contrast between private and public law creates the illusion that the field of public law, especially the constitution and administrative law, is the exclusive domain of political power and that the political power is entirely removed from the private domain. However, the opposition between private and political is impossible without a reference to subjective rights. This assumes private rights to be at least as political as public rights (Kelsen, 2016, pp. 51–56).

Law and Politics or Sovereignty: Dualism

Most modern legal and political theories assume that a dualism exists between the state and the law. On the basis of this assumption, the contrast lies between private and public law as previously mentioned. The state, actually being another form of law, is stated as being positioned opposite the law in one aspect, while also basically being a legal phenomenon in another. According to Kelsen, this dualism arises from the traditional theory that characterizes the state as an entity independent of the legal system while also accepting it as the subject (i.e., legal person) with legal obligations and rights (Kelsen, 2016, p. 120).

The theory of private law recognizes that an individual's legal personality exists temporally and

logically before the legal system. Similarly, the theory of public law recognizes the state, which is the collective union of will and action, to be independent and preceded by law. However, the theory of the state precisely assumes that public law represents the state as the creator of the law and at the same time attaches itself to the law created by the state. In other words, the state as a supra-legal entity is assumed as both a pre-assumption of law and to presuppose the law; it takes liabilities and rights from the law that it created. At the same time, this approach also reduces the law directly to code.

According to Kelsen (2016, pp. 122–123), this dualism is purely ideological. The conception of the state as a different entity from the law allows the law to be created while also allowing the law to create the legitimacy of the state. The state that emerges from a lean concentration of power makes it a *Rechtsstaat* [legal state], one that has created and legitimized itself. This new form of legitimacy becomes replaced as long as the religious-metaphysical legitimacy in classical/traditional natural law ceases to exist. The contradiction here is still in place with no solution: On the one hand, the state is defined as a legal person, while on the other hand it is accepted as a power that exceeds the law.

The possibility of removing the ideological function of dualism is that the state as a social structure is seen as a system of human behavior. The opportunity is having the state be understood as a legal order. The common point of the state and the law is that they are compulsory social systems. The separating qualities of both the state and the law are the same compulsory actions. These two social systems must be the same, because the same social community (i.e., citizens and political-legal systems) cannot be built at the same time by two different systems. Therefore, the state is a legal order. It is not just any legal order but the legal order that reaches a certain centrality and establishes a functional division of labor. Otherwise, the need would have existed to build a state or the previously mentioned Ständestaat for legal practices in the feudal period. The feudal period, however, had no central courts issuing singular norms, nor were these norms passed along through compulsory actions. Only as a result of historical and political evolution did central organs emerge from the process of social division of labor to construct the modern state.

Because no better legal system exists than the modern state's legal system, the state itself has become the system of the supreme rule of law. In this context, the application of the modern state's sovereignty and legal system is limited to its territorial area. This corresponds to both the country and the citizens to whom the civil actions arising from the legal system can be applied. Moreover, the problems related to the validity and creation of the legal system are also the main issues of political theory. In this context, Kelsen (2016, pp. 125–130) regarded politics such as the state to be identical to legal theory, expressing the law (positive law) not to be a legitimate apparatus of the state in just the same way as legitimizing the law is a tautology of the state. However, Kelsen (p. 134) appeared to have forgotten that he had also assumed the action of legitimization to be subjective rather than objective and political theory and the theory of law to be identical. Despite stressing the fact that the law must be an objective science, the legitimacy debates entered into the field of politics, and this aspect of law was forgotten.

Schmitt: Law as the Writ of Sovereignty

The concept of Law that Hans Kelsen constructed within his pure theory of law rendered the state and law to be identical. Even political theory is occasionally included in this identicality. However, having entered a serious intellectual and theoretical argument with Kelsen during the 20th century, Car Schmitt denied this identicality and constructed the state-law relation from an entirely different point. Similar to Kelsen, Schmitt had received criticisms from many spectrums of the political array. The paths of many different sections, primarily composed of liberal political theoreticians, intersected with Schmitt. Schmitt was always on the agenda, whether for refreshing faith (i.e., seeking legitimate grounds for political and legal acceptances) or for finding a scapegoat (i.e., assuming him to have been the theoretician of political dictators).

Schmitt's conceptualization of law is not independent from government and politics, for the law does not consider itself to be autonomous or independent nor to be reduceable to acts directly. In all spaces where sovereignty is beyond discussion, one assumes that the law and the state cannot be fully comprehended. In other words, one cannot comprehend the state-law relationship without understanding the political connotation between the concept of sovereignty and all it entails.

Normativism and the Dualism of Law

Schmitt means the notion of rule of law when he mentions the modern State. German intellectual academic studies only approached the state as an organized social structure of society after the romantic and idealist traditions. As a result of the national unity in particular that arrived after Hegel and that could not be established with Bismarck, the state itself was conceived as a metaphysical unity. For Hegel (2001, pp. 194-266), the state is the form where the entity rises within itself in a perfect and complete manner. In this sense, the state represents a corporate order that has attained national unity within a country's territorial borders and that has found its authentic representation and identicality in sovereignty. Schmitt conducted his discussion on law and politics within the scope of this tradition while keeping united the theory of the rule of law and its political conceptualizations. According to Schmitt, the state possesses two different souls. The first of these is the concept of tangible/factual order as understood within the framework of his political notion, and the other is the rule of Law (Bezci, 2006, pp. 91–92).

Similar to Kelsen, Schmitt also spoke from within legal positivism. He also similarly directed his criticisms toward the acceptance through legal positivism. Such as his basic criticism was the dualism that was present in the field of law. However, the dualism that Schmitt discussed was not the dualism between private and public law as Kelsen argued. Schmitt instead criticized the dualism that is assumed to present in a rule-of-law state between positive and natural law.

Modern political theory is known to distinguish between natural law and positive law mainly within the context of legal order. Whereas during the traditional period, the divine laws or universal laws that were innate to nature represented fundamental/natural laws, and the laws or traditions that were created under these within the legal hierarchy could not conflict with such natural laws. Natural laws represent the benchmark and reference of justice. During the modern period however, this divine natural law became secularized, and the laws that had been declared just by God were now constructed using rational intelligence. Although the idea of God had been dismissed from legal creation processes in this scope, some divine and inalienable fundamental/universal laws were believed to exist for modern positive law. The rights provided regarding the notion of human rights emanate from this context. One uses the codifications states make in favor of natural laws (i.e., legislative activities) to overcome the dualism between the state-created positive law and the aforementioned natural law.

For Schmitt (2004, p. 3), the modern rule-of-law state was a "legislative state." The feature of a legislative state that possesses a political public structure is that it considers the making of norms to be the highest expression of public will. As the structure that emerges pursuant to such norm-making, law subjects all public functions, activities, and structures to itself. The rule-oflaw state that was seen in the tradition of the European continent after the 19th century was in fact an entirely legislative state, (i.e., a parliamentary legislative state). Parliament has a supreme and central position as a legislative organ because it conducts the making of norms with the title of lawmaker (pp. 3-4). The issue of legitimacy comes into play at this point. Is the legitimacy of legal norms based on the positive laws previously passed by the parliament, or does legitimacy actually result from the legal processes themself (i.e., from the authority/sovereignty of the lawmaker; Bezci, 2006, pp. 91-93)?

The concept of the liberal rule-of-law state mostly manifests a normative approach that mainly intends to limit legitimacy to legality. For Schmitt, however, the emphasis on legality disregards sovereignty, which is the real source of legitimacy, and cripples legitimacy. Although Kelsen did not seek legitimacy in his pure theory of law, he did open the door to normative legitimacy as he neglected sovereignty. Because Kelsen viewed the effort for legitimacy as a subjective behavior that did not match with the objective theory of law, the duty of this theory is not to seek or create legitimacy. In this context, Kelsen solved the problem of the concept of sovereignty by negating it. The result of his deduction was that the concept of sovereignty must be radically repressed. This is in fact the old liberal negation of the state vis-a-vis law and the disregard for the independent problem of the realization of law. His theory of the sovereignty of laws rests on the thesis that it is not the state but law that is sovereign (Schmitt, 2005, p. 21). Laws are what reign, not humans, authorities, or emperors. Stated more clearly, laws do not reign, they are only accepted as norms. Empery and brute force shall no longer exist from now on. Anyone wishing to establish an empery through force should do so "on a legal" basis or "in the name of the law" (Schmitt, 2004, p. 4). The organization of a legislative state is always based on the principle of separating legislative and executive activities. The purpose of this is to build the fundamental legitimacy of the legality that lies behind the empery of depersonalized norms. The basis of a closed system of legality is obedience, and it justifies this to eliminate all forms of the right to resistance. At this point, the characteristic appearance of the legal order is law, and the characteristic justification of the use of force by the State is legality (Schmitt, 2004, p. 5).

For Schmitt, the state does not represent an organization that purely results from power concentration, as Kelsen had claimed. Power does not prove anything with regard to the law; as Jean-Jacques Rousseau stated in agreement with the spirit of his time, "Force is a physical power; the pistol that the robber holds is also a symbol of power" (as cited in Schmitt, 2005, pp. 17–18). As an entity that is procreated by sovereignty, the state has an interim status as the creator of law and as an entity that is governed by the same. Schmitt manifests an approach that does not clearly distinguish between an order that justifies a specific system of norms from an order of political realities (Schmitt, 2016, p. vii). For a political union in this context, Schmitt not only considered a legal-political union to be mandatory, but also the union of the state, society, and nation. However, this union is out of the question in a legislative state, because a liberal legislative state (i.e., a parliamentarian rule-of-law state) denies the state-civil society dichotomy (or stateindividual dichotomy) on the grounds of democratic theory. At the same time, no homogeneity exists between the civil society and the individuals that compromise the society. In the presence of such acceptances, the emphasis of parliamentarian democracy on popular will through a formalistic normative approach in fact damages itself and imperils its own legitimacy. In other words, when the will of the State is separated from the popular will through democratic insistence, the meaning of the same democratic insistence will depict all expressions from society as law and present society with a judicial rank within the law. A law that exists in a democracy represents the existing society's instant will. In practical terms, this means the will by the instant majority of voting citizens. This represents a figurative law making; however, no homogeneity actually exists between the individuals that compromise the civil society, which is what liberal theory assumes. Therefore, an instant decision by the majority of society results from the unreal homogeneity of the longterm democratic majority (Schmitt, 2004, pp. 28–29). In practical terms, this represents a paradoxical conflict with liberal democratic pluralism. The solution that Schmitt introduced for this was democratic homogeneity (i.e., identicality; Frye, 1966, pp. 818–830). Strictly speaking, this entails identicality between state and society, between the rulers and the ruled, between the subject and object of state authority, between society and its representation in parliament, and between the state and voters (Schmitt, 1988, p. 42). The triangulation point here is the identicality of the authentic representation and the self.

Meanwhile, Schmitt identified three extraordinary lawmakers within the constitutional order apart from legality during extraordinary moments of crisis where the parliament is unable to produce a solution due to not being able to achieve homogeneity. Accordingly, parliament as the ordinary lawmaker appointed by legality may not perform the functions of these extraordinary lawmakers: 1) Ratione materiae [the authority of the Reichstag to revise the constitution with a two-thirds majority vote), 2) Ratione supremitatis (a referendum authority from society), and 3) Ratione necessitatis (authority of the Reich chairman to implement the article of state of emergency). The following can be concluded from this: Ensuring the legitimacy of the order of legality results from the legality itself; contrarily, however, the legality of the legitimate order can be legitimized. In such a case, centers that grant legitimacy precede legality. Extraordinary lawmakers both ensure legitimacy and create the basis of legality. On one other hand, the ordinary lawmaker owes its existence to the extraordinary lawmaker. Positivist and normative theories of law overlook this point (Kardes, 2015, p. 257).

The Zero Point of Law: Decision

In the hierarchy of the norms he created, Hans Kelsen legitimized all norms by connecting them to a single senior-norm: the *Grundnorm* [basic norm]. The consistency of the legal system and the presence of no gaps therein reveal the totality of all sub-norms through each other and the *Grundnorm* that precedes them. In fact, the pure theory of law gives away its own transcendental core (Kelsen, 2016, pp. 69–75). For Schmitt, however, the *Grundnorm* did not exist at the beginning of the law's construction, *Grund-nahme* [conquest] existed at the beginning (1995, p. 581), which means the sovereign made the decision after the conquest.

Schmitt was previously asserted to believe the state to have two souls and to therefore be comprised of legal order and of objective order (the political). Schmitt used determinateness in order to surpass normativism during discussions on the constitution. Here, he surpassed the impersonality of normativity and transcended into the decision's perception of personal reign to perception of the decision. While doing this, though he assumed the presence of democratic identicality (i.e., authentic representation) mentioned above. The sovereign as the determiner of the legal exception (i.e., state of emergency) does not create the law (Schmitt, 2016, p. 13); but only validates the law through their decision and are permitted to violate existing rules in order to preserve the legal order. A sovereign's decision does not possess unlimited power. As the main source of law, the society's right to live limits the sovereign's decision making ability. Still, the legitimacy behind the sovereign's decision is the support from the political union for this decision. In other words, the decision-maker is sovereign due to his authentic representing the political union (Bezci, 2006, p. 107).

Legitimacy: State, Law, and Sovereignty

The legitimacy issue has existential significance as it determines the zero point of both politics and law. Although Kelsen accepted law as the thing-in-itself and intensified his efforts to build an objective science, juridical science presents legitimacy in factual order, even if this was not Kelsen's goal. Meanwhile, Kelsen neglected the concept of the political and failed to examine the appearance of factual order (i.e., law) within the practical social order or their relationship. On the other hand, Schmitt did not get much closer to Kelsen's approach (i.e., building the law through Grundnorm with his emphasis on sovereignty as the constituent will and unique source of legitimacy. Schmitt's approach with regard to the political and political unity was based on factual order by defining the law in terms of the sovereign's extraordinary decision being identical to that of society/people. The approach toward understanding the modern state in this article both attaches importance to Kelsen's emphasis on juridical science as well as equivalent value to the notion of sovereignty as Schmitt had rightfully developed. More precisely, the claim is made that both jurists should be analyzed together to understand the modern state, and that both the theory of law and the notion of sovereignty are indispensable for the modern state. This paper examines sovereignty as a basic legal-political notion that enables the modern state by distinguishing it from the conventional approaches of state and law while also in another sense bringing divine will down to Earth.

The Source of Authority and the Singularity of its Usage: Sovereignty

Modern political theory (such as in assumptions of Hobbes, Locke etc.) has a dualistic attitude regarding legitimacy. The natural law assumption claims human beings to have universal rights independent from positive rights while also claiming that the normative rules built by positive law hold humans accountable. Those who hold the accountability are, of course, the legal institutions that take their power from the legal sovereignty.

This article has noted legitimacy to have mainly been defined in the pre-Modern era through the oral tradition of the customs during the feudal period. Following the reintroduction of script in the creation and transfer of law, approach this article the has defined ลร traditional/classical natural law became dominant, and the basic resource of legitimacy in this period were the rules that had been created or come out of divine will. These rules are immanent in nature and the universe as well as in humanity and society's own nature and design both the political order (e.g., king, palace, stände [corporate] councils) and social roles. Therefore, natural laws are assumed to have already existed prior to the rulers as a set of binding rules, directly or indirectly breeding legal rules to which rulers themself owed their own legitimacy (Gierke, 2013, p. 130). In other words, a ruler is not legitimate in the sense that they are appointed by a clear divine order; rather, they are legitimate because the rulers emerge as a result of the natural and basic law of the social order created by God (Duguit, 2013, pp. 390-391). Any criticism from the secular camp against the mainstream approach is considered to be equivalent to an aberration and subversion of order. Therefore, the forerunners of the theorists such as T. Aquinas, Suarez, Vitoria, and Grotius who opened the way to secular thought later mostly had a clerical past and paved the way to secularity by making references to Christian theology.

All of these names accept the limitation of the divine will through natural law as the zero point and as a thing left to the positive law that would arise in the future. However, in order for positive law to emerge, the modern state that creates positive law with normative arrangements needs to come into being first.

Law shifted to modernity through the concept of sovereignty. The process of sovereignty defines the law and the political while at the same time highlights legitimacy as the joint determinant of law and politics. As such, the form of sovereignty (i.e., way it is accepted) also determines the legitimacy. In this context, political science widely accepts Machiavelli to have reinforced and spread state as a term in the modern sense. In his works, Machiavelli mentioned the issues of exercising power over a specific land and a specific people as well as their control and regulation; this would be defined as the essential feature of the state as a term (D'entreves, 2013, pp. 195-197). At this stage, however, Machiavelli spoke about the practical order of politics without making a theoretical discussion on legitimacy. In this context, J. Bodin, who regarded political power as the first condition of social life, closed the points Machiavelli left open using the concept of sovereignty and paved the way for the modern state authority (Schmitt, 2013, p. 247).

The characteristics of sovereignty involve the place where the modern state and authority have appeared: Sovereignty is absolute, sovereignty is permanent, and sovereignty is indivisible/inalienable. According to Bodin, sovereignty as the highest power providing order cannot be constrained by any material force other than itself. This is because the sovereignty of a ruler who is given certain limits under certain obligations and conditions is not a true sovereignty. However, Bodin places the natural law that is assumed to be superior to material power over the sovereign under normal conditions. Regarding the question as to what extent the sovereign is confined by the rules and responsible to the rules, Bodin stated that the expressions are binding because the power to assign responsibility is based on natural law. In extraordinary circumstances, however, this bond is cut in accordance with general and natural fundamental principles. "In general, the responsibility of the prince to the vassals or the people continues as long as it is in the interest of the people to fulfill the promise; but in case of urgent needs, the commitment ceases" (Schmitt, 2005, pp. 8-9). The absoluteness of sovereignty allows rulers to make rules in favor of their vassals and to abolish rules the ruler had already made. However, the ruler cannot make a rule that restricts the ruler's self. Such a restriction goes against the nature of sovereignty for a ruler who does not relinquish sovereignty, which is absolute, of their own will. This is because an authority that is restricted by a specific duration or that can be terminated by someone else does not correspond to sovereignty. The sovereign maintains sovereignty as long as they live. The sovereignty does not die after the ruler dies; the right of sovereignty instead passes on to the next sovereign. Thus, a dichotomy is established between the mortal and immortal body of the ruler, and the permanence of sovereignty is thus sustained (Kantorowicz, 1957, p. 408). In other words, sovereignty is the spiritual personality of the ruler and is transcendental and immortal. Finally, the absolute and permanent characteristics of sovereignty view its own division as logically impossible.

Bodin's ideas on sovereignty were his contribution to the philosophy of politics and law and has always been one of Schmitt's basic references. Although Bodin had a perspective toward natural law, his view of sovereignty's absoluteness and immanence in the political organization set a theoretical basis that allowed Schmitt to explain the suspension of law in extraordinary and exceptional situations.

The secular construction of the modern state in political philosophy was truly only possible with T. Hobbes' development of Bodin's conceptualization of sovereignty. Still, although the theoretical contributions from Bodin and Hobbes were quite important, the sovereignty in the liberal parliamentary democracies of the 19th and 20th centuries had reached a rather different point. The separation of legislative, executive, and judicial branches and making them elements to balance one another were equivalent to the division of sovereignty in the classical sense. Sovereignty can even be said to have restrained itself through the dichotomy between natural and positive law. Therefore, Schmitt (1988) stated liberal parliamentary democracy to be a crisis for the modern state and even argued the liberal theory of politics and law to have weakened the modern state by undermining its sovereignty (Schmitt, 2005). Still, although Schmitt had made correct points, the liberal parliamentary democracy

of the 19th and 20th centuries had come to a new point. In fact, this point was not alien to Schmitt: The sovereignty belonged to the nation instead of a king or ruler!

The sovereignty that had historically grown through divinity was purified from Christian metaphysics at some point but unable to become fully independent from metaphysics. In this context, Western thought/philosophy should be described as metaphysics. Whether Platonist idealism or Aristotelian materialism, metaphysical involves the judgment of existence, where 'the existence' includes social beings and finds existential meaning and where the judgment is about its reality/truth (Heidegger, 2009). In this context, secular law and politics should be accepted as having a metaphysical meaning and claim and therefore refer to universal human rights as well as inalienable (i.e., transcendent) and sacred rights, even in the age of secular nation states.

Upon returning to the issue of national sovereignty, this doctrine also assumes political power to possess something divine. As is often said, political power has set the divine right of the people in place of the right of the king. In turn, this shows that the theocratic doctrine undoubtedly has had a direct influence on the doctrine of national sovereignty (Duguit, 2013, p. 391). These days, the sources of legitimacy are the national assemblies and their actions as the appearance of the national sovereignty. However, with their normative or supranormative actions, these are the places where one can see the soul of God or hear God's footsteps, and who knows if Hegel had predicted this?

Concluding Remarks

While trying to place the law in an autonomous position independent of politics, Hans Kelsen wanted to limit the decisiveness of politics. The reason for this limitation was to prevent the law from arbitrary acts of politics or from becoming an instrument of the law's political interest groups (Baume, 2009, p. 369). However, Kelsen's concern contradicted his acceptance that every current constitution is a legitimate one. This is because a power that has seized power through any coup and makes its own constitution is considered legitimate currently. This in turn nullifies the scientific efforts of Kelsen, who had built the hierarchy of norms on the basis of *Grundnorm*, as well as his justification for preventing the abuse of law by political interests.

While the creation of the *Grundnorm* occurs with regard to the extraordinary, the sub-norms attached to it take place in the ordinary legal order. Kelsen did not discuss when, how, or by whom *Grundnorm* was created. In other words, Kelsen did not explain *Grundnorm*'s creation at all (Raz, 2013, p. 1074). While criticizing the excessive involvement of the law in everyday politics, he constructed a notion and order of law that was ahistorical and independent of the political. What Schmitt stated about this zero point where law is dehistoricized was correct: The creation of law cannot take place in a pure state independent of the historical and without context.

Sovereignty is what should create the *Grundnorm* by its decision, which would thus historicize this de-historicized order of Kelsen.

Another issue involves the implementation of norms. One needs to accept that the application of norms is not independent of concrete reality but is influenced by personal decisions (Buldur, 2019, p. 137), because the mere content of the norm does not specify how the norm will be applied. The sovereign/ruler who will implement the norm decides by establishing a relationship between the norm and the actual world. Therefore, Schmitt argued that legal practices cannot be completely independent of the arbitrariness of the sovereign decision maker (Delacroix, 2005, p. 37). As I have declared above, the concretization and historicization of law creation and the notion of sovereignty depend on the simultaneous coexistence of sovereignty and the hierarchy of norms. This cannot be established on a purely theoretical basis. However, contrary to Schmitt, the sovereign's decision regarding a state of emergency should not mean that the ruler is normalizing the state of emergency. The Grundnorm that is decided in the state of emergency is and should remain the source of the hierarchy of norms under normal circumstances.

The linking of a norm to a higher norm should actually prove that the upper norm determines the lower one. In other words, the hierarchy of norms to which Kelsen only formally adhered cannot fully guarantee the creation of the lesser norms independent of the content of the upper norms. While the formalist process of law creation adheres to *Grundnorm*, other norms will not be independent of each other in terms of content. In addition, the indirect legitimacy of every power that makes the law valid does not reveal a politico-legal existence different from the power of the sovereign who makes the decision regarding the exception in practice.

Expanded Abstract

This article examines state-law relations in modern states by comparing the ideas of Carl Schmitt and Hans Kelsen. The theoretical relation of the modern state with politics and law can be read through two theoreticians: Hans Kelsen and Carl Schmitt. While Kelsen preceded law and placed it in an existential center for the state, Schmitt put the political at the center and connected the existence of the modern state to this. Thus, through both Kelsen and Schmitt, one can say that the modern state cannot be understood without mentioning the concept of positive law, and of course parliament is the legislative body through which the law was created using norms and politics. In other words, law and politics as the two founding elements of the modern state are essential to the issue of legitimacy.

In this context, the article first discusses what modern law is and from where its differences emerge. While making this comparison, the article's main purpose is to investigate the mechanism of the emergence and sustainability of how legal systems function in modern states. Its main argument is that the relationship modern states have with law can on one hand be embodied through the notion of sovereignty, while the creation of law can on the other hand be embodied through the hierarchy of norms. In other words, the concretization and historicization of the creation of law and the notion of sovereignty depend on the simultaneous coexistence of sovereignty and a hierarchy of norms.

Kelsen claimed his work, The Pure Theory of Law, to be a theory of law entirely separate from all elements of political ideology and natural sciences, to be conscious of the autonomy of the research object (i.e., law), and therefore to be a theory of law conscious of its own unique character. During the historical period in which he constructed his theory, mention must be made of a similar situation that was still going on: Legal science had been reduced, both explicitly and implicitly, almost entirely to legal policy. In other words, the law was being evaluated not based on its own autonomy but in the context of its function and the instrumental relation between it and politics (i.e., the holder of political power). Since the very beginning, Kelsen's main purpose was to raise the law to the level of a real science, a social science. His thoughts on jurisprudence were about developing tendencies that focus on not the shape of the law itself but a cognition about it and nothing else and then placing the results from this cognition at the top of all the sciences (i.e., to approximate universal objectivity and certainty). As it is clear from Kelsen's words, he was speaking of a neo-Kantian certainty and universality. This bet is important for Kelsen because he will claim this is the only legitimate way, apart from sovereignty, to make a supra-state international order possible.

As a name outside of the positivist voluntarist conception of law, Hans Kelsen claimed that the law must be a pure science beyond the assumption of the natural law. In this context, the theoretical framework about either the relation between the modern state understanding and the law or the relation of the law to its internal structure is very important. In particular, the hierarchy of norms upon which constitutions are built and the establishment of the theoretical bases that make international law possible from a neo-Kantian approach makes this important. Kelsen examined the relationship that political power (i.e., state power) has with the law in the context of the constitution and entered into a productive and serious debate with Carl Schmitt. This fruitful debate took place mainly in the context of sovereignty, law, and the Constitution and has maintained its importance to the present.

The concept of Law that Hans Kelsen constructed within his pure theory of law rendered the state and law to be identical. Even political theory is occasionally included in this identicality. However, having entered a serious intellectual and theoretical argument with Kelsen during the 20th century, Car Schmitt denied this identicality and constructed the state-law relation from an entirely different point. Similar to Kelsen, Schmitt had received criticisms from many spectrums of the political array. The paths of many different sections, primarily composed of liberal political theoreticians, intersected with Schmitt. Schmitt was always on the agenda, whether for refreshing faith (i.e., seeking legitimate grounds for political and legal acceptances) or for finding a scapegoat (i.e., assuming him to have been the theoretician of political dictators).

Schmitt conceptualization of law is not independent from government and politics, for the law does not consider itself to be autonomous or independent nor to be reducible to acts directly. In all spaces where sovereignty is beyond discussion, one assumes that the law and the state cannot be fully comprehended. In other words, one cannot comprehend the state-law relationship without understanding the political connotation between the concept of sovereignty and all it entails.

The article compares the state-law relationship that Kelsen constructed upon the basis of his Pure Theory of Law to Carl Schmitt's consideration of law as the decision of the sovereign. Although Kelsen accepted law as a thingin-itself and intensified his efforts to build an objective science, juridical science presents a legitimacy in factual order, despite this not being Kelsen's goal. Kelsen, however, neglected what is political and failed to examine the appearance of factual order/law within the practical social order and their relationship. On the other hand, Schmitt's emphasis on sovereignty as the constituent will and unique source of legitimacy did not get much closer to Kelsen's approach to constructing law with Grundnorm. With regard to the political and political unity, Schmitt's approach was based on factual order by defining the law in terms of the extraordinary decision of the sovereign as a being identical to the society/people. This article's approach to understanding the modern state attaches both importance to Kelsen's emphasis on juridical science as well as equivalent value to the notion of sovereignty that Schmitt had rightfully developed. The last section of this article argues that the state-law relationship in modern states emerged through both Grundnorm and sovereignty as a partnership of both.

References

- Akal, C. B. (2017). Hukuk 'Nedir'? Ankara: Dost Kitapevi Yay.
- Akal, C. B. (2013). *Modern Düşüncenin Doğuşu -İspanyol Altın Çağı-*, Ankara: Dost Kitabevi Yay.
- Baume, S. (2009). "On political theology: A controversy between Hans Kelsen and Carl Schmitt", *History of European Ideas*, 35, p. 369.
- Bezci, B. (2006). Carl Schmitt'in Politik Felsefesi -Modern Devletin Müdafaası-, İstanbul: Paradigma Yay.
- Bloch, M. (2005). *Feodal Toplum*, Çev. M. Ali Kılıçbay, Ankara: Doğubatı, 2005.
- Bourdieu, P. (1987). 'The Force of Law: Toward a Sociology of the Juridical Field', trans. Richard Terdiman, *The Hastings Law Journal*, vol. 38, July.
- Buldur, İ. (2019). Egemenlik Kavramına Hukuki ve Politik Bakış: Kelsen ve Schmitt, unpubl. MA Thesis, Sivas Cumhuriyet Üniversitesi Sosyal Bilimler Enstitüsü.
- D'entreves, A. P. (2013). 'Devlet Kavramı', in *Devlet Kuramı*, ed. Cemal Bali Akal Ankara: Dost Kitabevi Yay.

- Delacroix, S. (2005). 'Schmitt's Critique of Kelsenian Normativism', *Ratio Juris*, Vol. 18 No. 1, March, pp. 37.
- Duguit, L. (2013). 'Egemenlik ve Özgürlük', in *Devlet Kuramı*, ed. Cemal Bali Akal, Ankara: Dost Kitabevi Yay.
- Dworkin, R. (1977). Taking Rights Seriously, London: Duckworth.
- Frye, C. E. (1966). 'Carl Schmitt's Concept of the Political', *Journal* of *Politics* 28, pp. 818–830.
- Heidegger, M. (2009). *Metafizik Nedir? Was ist Metaphysik?*, Ankara: Türkiye Felsefe Kurumu Yay.
- Kantorowicz, E. H. (1957). The King's Two Bodies: A Study in Mediaeval Political Theology, Princeton-New Jersey: Princeton University Press.
- Kardeş, M. E. (2015). Schmitt'le Birlikte Schmitt'e Karşı -Politik Felsefe Açısından Carl Schmitt ve Düşüncesi- İstanbul: İletişim Yay.
- Kelsen, H. (2016). Saf Hukuk Kuramı -Hukuk Kuramının Sorunlarına Giriş-, trans. Ertuğrul Uzun, İstanbul: Nora Yay.
- Kelsen, H. & Schmitt, C. (2015). The Guardian of the Constitution: Hans Kelsen and Carl Schmitt on the Limits of Constitutional Law, Trans. Lars Vinx, Cambridge University Press.

- Kronman, A. (1983). *Max Weber (Jurists: Profiles in Legal Theory)*, London: Edward Arnold.
- Lash, S. (2013). Sociology of Postmodernism, London: Routledge.
- le Goff, J. (2017). Ortaçağ Batı Uygarlığı, çev. Hanife Güven, Uğur Güven, Ankara: Doğubatı.
- Poggi, G. (1978). The Development of the Modern State: A Sociological Introduction, Stanford University Press.
- Rawls, J. (1972). A Theory of Justice, Cambridge, MA: Harvard University Press.
- Raz, J. (2013). 'Kelsen'in Temel Norm Kuramı', trans. Şule Şahin Ceylan, AÜHFD, vol: 62/4pp. 1169–1193.
- Schmitt, C. (1988). *The Crisis of Parliamentary Democracy*, trans. Ellen Kenedy, The MIT Press.
- Schmitt, C. (2004 [2016]). Legality and Legitimacy, trans. Jeffrey Seitzer, Duke University Press.
- Schmitt, C. (2005). Political Theology -Four Chapters on the Concept of Sovereignty-, trans. George D. Schwab, Chicago: University of Chicago Press.
- Weber, M. (1978). Economy and Society: An Outline of Interpretive Sociology, University of California Press.


The Effect of Household versus Enterprise Credit on Economic Growth in Türkiye

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Research Article	ABSTRACT
History	The motivation of this study is the significant growth of the Turkish economy in credit volume over the past two decades. Although theoretical predictions suggest distinct impacts of household and enterprise credit on the economy, the empirical literature has predominantly relied on aggregate indicators of total bank lending to the
Received: 22/07/2023 Accepted: 29/09/2023	private sector. Only a few studies have examined the impact of credit composition on economic growth concerning the credit source. Despite the significant expansion of credit volume, this specific issue has not been previously investigated in the context of Türkiye. Therefore, this study aims to empirically assess the effects of total bank credit on the private sector as well as enterprise (or business) and household credit markets on economic growth. The empirical study is based on a time series approach called ARDL cointegration to reveal
JEL Codes: 012, G21, C22	the long and short-run relationships between related variables. An annual time series data from 1986 to 2021 is applied for Türkiye. Empirical results show that enterprise credit has a positive impact on economic growth, whereas household credit does not affect economic growth. The findings also show that the total amount of
Acknowledgment	banking credit given to the private sector does not affect economic growth. Furthermore, it is presented that
This study is based on a master thesis completed by Betul Ismic under the supervision of Sedef Sen.	there is a two-way causality for enterprise credit and economic growth in the short and long-run. The lending structure determines how much financial development impacts economic growth. Our findings explain that it is not relevant how much money financial institutions lend, but to whom and for what purposes it is lent is quite significant in Türkiye.

Keywords: Financial Development, Economic Growth, Household Credits, Enterprise Credits

Türkiye'de Hanehalkı ve İşletme Kredilerinin Ekonomik Büyümeye Etkisi

ÖZ

Bu çalışmanın motivasyonu Türkiye ekonomisinin son yirmi yılda kredi hacminde kaydettiği önemli büyümedir. Teorik öngörüler hanehalkı ve işletme kredilerinin ekonomi üzerindeki farklı etkilerine işaret etse de ampirik literatür ağırlıklı olarak özel sektöre verilen toplam banka kredi göstergelerine dayanmaktadır. Kredi kompozisyonunun ekonomik büyüme üzerindeki etkisini kredi kaynağı açısından inceleyen az sayıda çalışma bulunmaktadır. Kredi hacmindeki önemli genişlemeye rağmen, bu özel konu daha önce Türkiye bağlamında araştırılmamıştır. Bu sebeple, bu çalışma, özel sektör üzerindeki toplam banka kredisinin yanı sıra girişimci (veya isletme) ve hane halkı kredi piyasalarının ekonomik büyüme üzerindeki etkilerini ampirik olarak değerlendirmeyi amaçlamaktadır. Ampirik çalışma, ilgili değişkenler arasındaki uzun ve kısa dönemli ilişkileri ortaya çıkarmak için ARDL eş bütünleşme adı verilen bir zaman serisi yaklaşımına dayanmaktadır. Türkiye için 1986'dan 2021'e kadar yıllık zaman serisi verileri uygulanmıştır. Ampirik sonuçlar, işletme kredisinin ekonomik büyüme üzerinde olumlu bir etkiye sahip olduğunu, hane halkı kredisinin ise ekonomik büyümeyi etkilemediğini göstermektedir. Bulgular ayrıca özel sektöre verilen toplam banka kredisi miktarının ekonomik büyümeyi etkilemediğini göstermektedir. Ayrıca, kısa ve uzun vadede işletme kredisi ve ekonomik büyüme arasında iki yönlü bir nedensellik ilişkisi olduğu ortaya konmuştur. Kredilendirme yapısı, finansal gelişmenin ekonomik büyümeyi ne kadar etkileyeceğini belirler. Bulgularımız, Türkiye'de finansal kuruluşların ne kadar borç verdiğinin değil, kime ve hangi amaçlarla borç verdiğinin önemli olduğunu ortaya koymaktadır.

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Anahtar Kelimeler: Finansal Gelişme, İktisadi Büyüme, Hane halkı kredileri, İşletme Kredileri



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Introduction

While researchers offer different answers to why countries grow economically at different levels, a recent focus has been on the role of the financial system (FS) in economic growth (EG). The manner of the link between the development of FS and EG is quite clear; developed countries have developed FS. Therefore, policies to improve FS are expected to increase EG (Khan and Senhadji, 2003). A significant number of empirical studies assess the impact of the functioning of the FS on EG. However, many studies examine financial development as a whole and neglect to analyze the individual effects of its components.

A better understanding of how FS promotes EG can be achieved by decomposing overall bank lending into its constituent parts. Credit composition and how it affects EG can provide insight into why countries grow economically at different levels. The fact that enterprise credit (EC) and household credit (HC) have different influences on growth may be of great relevance to policymakers looking to maximize the outcomes of policies in the financial sector on the real economy (Beck et al., 2012). Moreover, countries can determine whether EC or HC has a greater impact on EG.

Several reasons make it important to explore the composition of private credit (PC) in emerging countries. Firstly, the effects of the increased level of HC in emerging economies remain unclear. In one sense, better access to credit helps credit-constrained households smooth out their consumption; on the other hand, it increases spending and declines saving. In addition, higher levels of total PC are not necessarily correlated with higher levels of credit extended to enterprises. A rise in HC as a percentage of total PC can potentially prevent investment, especially in developing countries where stock markets are not well developed to facilitate investment (Büyükkarabacak and Krause, 2009). The two types of credit appear to have fundamental differences in their dynamics, and their impact on EG is expected to differ. Understanding credit composition and its effects on EG allows us to comprehend the tie between financial development (FD) and EG better. This study aims to find the impact of EC and HC separately on EG to identify which types of credits are more effective in promoting EG.

In the context of Türkiye, exploring this link is of particular interest. Firstly, the banking sector in Türkiye is essential for credit to enterprises and households. The size of EC to GDP in Türkiye rose between 1990 and 2020 and peaked at 89.6 % in 2021. Similarly, the size of HC to GDP in Türkiye rose between 1990 and 2020 and peaked at 17.5 % in 2020. Secondly, Türkiye attracted large amounts of foreign capital at relatively low costs because of the 2008 global crisis. When Türkiye became abundant in foreign resources, making it possible for Turkish residents to benefit from those resources through the credit provided by banks. As the Turkish economy has come across swift credit growth in recent years, and as the ratio of credit to GDP has risen, the power of credit to

influence macroeconomic variables has also increased. Thus, this study was inclined to investigate credit composition in more detail and to pay greater attention to it in the coming years. Thirdly, in Türkiye, studies analyzing the influence of bank credit on EG have largely focused on overall bank credit. Notably, few studies examine the link between credit types and EG. This study aims to reveal the disaggregated influence of private sector credit in households and enterprises on the EG of Türkiye. In that sense, this study aims to fill the gap in the literature on finance-EG by examining the disaggregated private credit to GDP.

The paper is organized as follows: Section 2 presents a brief theoretical and literature review. Section 3 describes the data and variables. Section 4 shows the econometric methodology. Section 5 concludes.

A Brief Theoretical and Literature Review

Credit generally refers to the rights or opportunities banks grant to private or legal individuals based on law or internal regulations and policies (Erdem, 2014). A large portion of the funds collected by banks are extended as credits by banks. The amount and maturity of the credit are determined according to the investor's demand. It is common practice to discuss credit composition in terms of the distribution of two types of credit across banks in the economy. The two main categories of credits are ECs (working capital credits, project credits, and open credits) and consumer credits (installment credits, mortgage credits, auto credits, etc.) (Günal, 2010).

EC is an important tool to meet a company's small volume, short-run financing, and long-run capital needs. A large number of companies make long-run credit agreements with their banks and use credits within the limits set by the bank for a specified period of time (Tunay, 2005). Consumer credit is defined as credit individuals or households use to purchase goods and services unrelated to investment or productive activities (Mengüç, 2017). The provision of consumer credits allows consumers to meet their various needs in a timely manner, supports consumption, stimulates the economy, and ensures the sustainability of depositors' savings (Bayar and Varışlı, 2020).

Credit plays a vital role in alleviating liquidity constraints among individuals and companies, easing consumption, and meeting the financing needs of the real sector, especially in developing countries, at a lower cost through the provision of credit (Demirezen, 2015). Credit availability to households and enterprises has been enhanced by improved risk assessment and pricing of risk, increased lending to households without strong collateral, the increasing securitization of loans, and the emergence of markets for riskier corporate debt. Credit usage may contribute to a diminution in economic volatility by reducing the sensitivity of household and business spending to changes in income and cash flow. Hence, negative shocks would be less likely to trigger fluctuations. However, a greater level of borrowing may also contribute to increased volatility by enabling households and businesses to buy capital goods more rapidly when their target stocks of those goods escalate (Dynan et al., 2006).

It is of great importance that the FS is robust, that there is a large credit volume, and that this is reflected in the volume of credit and contributes to EG (Özen and Vurur, 2013). When financial or economic crises strike, a majority of developed countries use expansionary monetary policies to promote consumption and investment. Real interest rates are lowered not only to increase inflation but also to increase credit demand. In most countries, using credit to finance investment and consumption is considered one of the most significant driving forces for the economy and the consumer (Irandoust, 2021). On the other hand, when bank credit is rapidly expanded to the private sector, macroeconomic stability may be affected by stimulation of aggregate demand in excess of potential output and overheating, as bank lending fuels consumption and/or import demand, which has an impact on the external current account balance, inflation, and currency stability. As the current account deficit worsens, it may subsequently result in the reduction of external credit lines and foreign liquidity, thus deteriorating the condition of the banking system and triggering a full-blown economic and financial crisis (Hilbers et al., 2005).

A bank credit channel describes how monetary policy practices affect aggregate demand in the economy, and thus GDP, by affecting credit volume (Togan and Berument, 2011). Bernanke and Blinder's study (1992) is one of the first to examine the bank credit channel comprehensively. The study argues that banks can extend credit to customers who might not otherwise be able to get credit in the open market due to the expertise they have acquired in evaluating credit applicants and monitoring loan performance. By reducing reserves and loans, the Federal Reserve reduces spending by customers who depend on bank credit, and thus, aggregate demand also falls. In this way, a new channel has been opened for Federal Reserve policy to reach the real economy in a more targeted manner.

An infinite number of empirical research have been performed regarding the tie between bank credit and EG¹; however, a small number of studies have analyzed the influence of the composition of the credit on EG concerning the source of credit. In their study, Beck et al. (2012) disentangled the influence of HC and EC on growth systematically for the first time, making it one of the most comprehensive studies of its kind. They used data from 45 developed and developing countries from 1994 to 2005. It has been found in the study that EC stimulates EG, whereas HC does not. The findings of the study by Sassi and Gasmi (2014), which investigated 27 countries using dynamic GMM, are also in line with the findings of the study by Beck et al. (2012). The study by Arcand et al., (2015) differs from other studies because they calculate a threshold effect, which depends on the non-monotonic tie between credit composition and EG. The findings suggest that growth is maximized when HC reaches 50% of GDP and firm credit to 80 % of GDP. Bezemer et al., (2016) distinguished HCs as consumer and mortgage credits. They found that EC is not statistically significant, and the coefficient of mortgage credit is negative. Leon (2016) used an extensive data set to estimate 143 countries using dynamic GMM. He asserts a negative tie connecting HC and growth, while no effect is found for EC. A study conducted by Angielkovska et al., (2016) found a positive correlation between HC, EC, and EG in eight Southeastern European countries. Benczúr et al., (2018) employ an analysis of 23 countries from the OECD countries and the EU countries. They find that credit to households is negatively correlated with growth, while credit to non-financial corporations is positively correlated.

Majeed et al., (2019) conducted a time series analysis for Pakistan using the ARDL model. The findings confirm a positive and vital influence of EC on Pakistan's EG, while HC does not enhance EG. Another time series study is conducted by Škare et al., (2019) for Poland using Johansen cointegration. They find that HC and EC have an important role in EG in the short and long-run. Irandoust (2021) employs a panel Granger causality test for six OECD countries and finds that HC has a more prominent influence on growth than EC. As far as our best knowledge, no study investigates the tie connecting HC and EC with EG for Türkiye. Nevertheless, there are studies available that explore the correlation between financial development and economic growth in Türkiye.²

Data and Variables

This study is based on annual time series data from 1986 to 2021. The dependent variable is economic growth, measured as the real gross domestic product (RGDP) based on constant local currency. Five different variables are used to represent credits. EC1 is the total claims of deposit money banks on non-financial enterprises as a ratio to GDP. EC2 is the relative share of ECs in total credits. HC1 is the total claims of deposit money banks on households as a ratio to GDP. HC2 is the relative share of HCs in total credits. BC is the share of total credit to the private sector as a ratio to GDP.

Three control variables are used in the study: Government expenditure, education, and trade. General government final consumption expenditures as a share of GDP (GOV) represent all government purchases of goods and services. The gross school enrollment ratio (EDU) is the ratio of the total enrollment of secondary education, regardless of age, to the population of the age group. Exports and imports of goods and services as a percentage of GDP (TRADE) measure trade openness. RGDP, GOV, EDU and TRADE variables are acquired from World Bank

¹ See Tables A1 and A2 in the Appendix for a detailed literature review. ² The studies are presented in the Appendix since they only partially align with the scope and objectives of this study. See Table A3.

World Development Indicators Database, while EC1, EC2, HC1, HC2 and BC variables are taken from the Central Bank of Türkiye, comparative country statistics. All of the variables used in the model are converted into natural logarithms.

Econometric Methodology

To assess the relationship between credit types (EC1, EC2, HC1, HC2 and BC) and economic growth for Türkiye, we start from a linear function as follows in Equation (1):

$$\begin{split} lnRGDP_t &= \beta_0 + \beta_1 t + \beta_2 lnCT_t + \beta_3 lnGOV_t + \\ \beta_4 lnTRADE_t + \beta_5 lnEDU_t + \epsilon_t \end{split}$$

Here, CT, t and ε represent credit types, trend³ and error term, respectively. Each credit variable is included in the models separately. That is, five different models are estimated.

We employ the autoregressive distributed lag (ARDL) approach developed by Pesaran et al. (2001) to test for the existence of a relationship between credit types and economic growth in the long-run. Several econometrics methods were introduced in the last three decades to reveal the long-run ties among time series. Earlier procedures shown by Engle and Granger (1987), Phillips and Hansen (1990), Johansen and Juselius (1990), and Johansen (1992) have some limitations. Although Engle and Granger's cointegration method is one of the most applied empirical approaches, it is inefficient for multivariate cases. Johansen and Juselius (1990) and Johansen (1992) methods are other commonly used, more efficient procedures in multivariate systems. However, to implement both methods, all variables must be non-stationary and integrated in the same order, I (0) or I (1). The ARDL strategy has several benefits over these other strategies. First, regardless of whether the underlying regressors are purely I (0), purely I (1), or mutually cointegrated, this method tests for the existence of a relationship between variables in levels (Pesaran, Shin, and Smith, 2001). Second, it avoids serial correlation and endogeneity problems (Ghatak and Siddiki, 2001). Third, in the model under consideration, the long and short-run parameters are simultaneously estimated (Halicioglu, 2008). Finally, estimates are more efficient and consistent with small sample sizes (Narayan, 2004).

The ARDL method involves several steps. The first step is to test the stationary of the time series. The ARDL model does not allow the analyzed series to be I (2). We applied traditional Augmented Dickey-Fuller (ADF) (1981) and Phillips Perron (PP) (1988) unit root tests. The second step is the identification and analysis of structural breaks in time series. The Zivot and Andrews (ZA) unit root test determines structural breaks. The third step is testing the cointegration between the variables. Equation (1) can be written as an ARDL formula as the model with intercept and trend in Equation (2) as follows:

$$\begin{split} \Delta lnRGDP_t &= \beta_0 + \beta_1 t + \sum_{i=1}^l \beta_{2i} \Delta lnRGDP_{t-i} \\ &+ \sum_{i=0}^l \beta_{3i} \Delta lnCT_{t-i} \\ &+ \sum_{i=0}^l \beta_{4i} \Delta lnGOV_{t-i} \\ &+ \sum_{i=0}^l \beta_{5i} \Delta lnTRADE_{t-i} \\ &+ \sum_{i=0}^l \beta_{6i} \Delta lnEDU_{t-i} + \beta_7 lnRGDP_{t-1} \\ &+ \beta_8 lnCT_{t-1} + \beta_9 lnGOV_{t-1} \\ &+ \beta_{10} lnTRADE_{t-1} + \beta_{11} lnEDU_{t-1} + \epsilon_t \end{split}$$

The ARDL approach follows several steps. First, Equation (2) estimates with ordinary least squares to show a longrun relationship between variables. The parameters β_2 - β_6 are the short-run coefficients and $\beta_7\text{-}\beta_{11}$ are the corresponding long-run coefficients. Joint significance of the coefficients lagged levels of variables $(\beta_7 - \beta_{11})$ show whether cointegration exists. According to test, null hypothesis is $H_0: \beta_7 = \beta_8 = \beta_9 = \beta_{10} = \beta_{11} = 0$ against the alternative hypothesis $H_1: \beta_7 \neq \beta_8 \neq \beta_9 \neq \beta_{10} \neq$ $\beta_{11} \neq 0$. The F test is used for the decision rule. Pesaran et al. (2001) calculated two sets of critical values for a given significance level. In one set, all variables are assumed to be I(0) (lower bound), while in the other, all variables are assumed to be I(1) (upper bound). However, Narayan (2004) and Narayan (2005) discussed that critical values obtained by Pesaran et al. (2001) are incompatible with small sample sizes. Thus, he calculated new critical values for sample sizes ranging from 30-80 observations. Considering 36 observations, it is taken into account Narayan's critical values in the present study.

There are three cases. First, if the estimated F statistic exceeds the upper bound critical value I (1), the null hypothesis will be rejected. It implies that there is a cointegration relationship among variables. Second, if the estimated F statistic is less than the lower bound critical value I (0), the null hypothesis will not be excluded. It implies that there is no cointegration link among variables. Third, if the computed F statistic falls into the bounds, then the test becomes inconclusive. Optimal lag l in Equation (2) is chosen based on model selection criteria such as Akaike (AIC) or Schwarz (SIC). The minimum information criteria imply optimal I.

If there is a cointegration, the fourth stage of the analysis estimates the coefficient of the long-run relationship determined in the third step. Long-run selected ARDL (h, z, r, k, m) model (3) as follows:

³ From the graphical analysis of data in the study, it is found that

variables in the model exhibit a linear trend pattern.

$$lnRGDP_{t} = \beta_{0} + \beta_{1}t + \sum_{i=1}^{h} \beta_{2i}lnRGDP_{t-i} + \sum_{i=0}^{z} \beta_{3i}lnCT_{t-i}$$
$$+ \sum_{i=0}^{r} \beta_{4i}lnGOV_{t-i}$$
$$+ \sum_{i=0}^{k} \beta_{5i}lnTRADE_{t-i} + \sum_{i=0}^{m} \beta_{6i}lnEDU_{t-i}$$
$$+ \varepsilon_{t}$$

To select lag values h, z, r, k, and m in Equation (3), model selection criteria such as AIC or SIC, as done in the third step, are used.

Finally, the error correction model (ECM) is estimated to provide for short-run coefficients of the ARDL model. Equation (4) is below:

$$\begin{split} \Delta lnRGDP_t &= \beta_0 + \beta_1 t + \sum_{i=1}^l \beta_{2i} \Delta lnRGDP_{t-i} + \sum_{i=0}^l \beta_{3i} \Delta lnCT_{t-i} \\ &+ \sum_{i=0}^l \beta_{4i} \Delta lnGOV_{t-i} \\ &+ \sum_{i=0}^l \beta_{5i} \Delta lnTRADE_{t-i} + \sum_{i=0}^l \beta_{6i} \Delta lnEDU_{t-i} \\ &+ \lambda ECM_{t-1} + \epsilon_t \end{split}$$

where λ is the speed of adjustment coefficient, and ECM is the residuals provided from the estimated cointegration model of Equation (2).

ARDL cointegration approach suggests five different models defined according to their deterministic features. These five models are the model with no intercept and no trend (case I), the model with the restricted intercept and no trend (case II), the model with unrestricted intercept and no trend (case III), the model with unrestricted intercept and restricted trend (case IV), and the model with unrestricted intercept and unrestricted trend (case V). (Pesaran et al., 2001). A null hypothesis rejected by the F-bounds test does not necessarily imply the existence of cointegration. For unrestricted models (Case I, III, and V), if the F-bounds test rejects the null hypothesis, the t-bounds test approach can be employed to examine whether cointegration actually exists. The null hypothesis for unrestricted models is as follows:

$$H_0:\beta_7 = \beta_8 = \beta_9 = \beta_{10} = \beta_{11} = 0$$

However, the alternative hypotheses appear in three different forms as follows:

$$H_{1A}: \beta_7 = 0, \qquad \beta_8 \neq \beta_9 \neq \beta_{10} \neq \beta_{11} \neq 0$$
$$H_{1B}: \beta_7 \neq 0, \ \beta_8 = \beta_9 = \beta_{10} = \beta_{11} = 0 \text{ and}$$
$$H_{1C}: \beta_7 \neq \beta_8 \neq \beta_9 \neq \beta_{10} \neq \beta_{11} \neq 0.$$

The first and second forms imply cointegration is nonsensical and degenerate, respectively. However, the third form indicates that cointegration is valid. Case V is selected to estimate our models as it is mostly used and in line with the literature.

Empirical Results

5.1. Unit root test for stationary

Selecting the most suitable unit root test can be challenging in practical applications. According to Enders (1995), employing both the ADF and PP tests as a cautious approach is recommended. When these tests support each other, it provides a higher level of confidence in the obtained results. The ADF and PP unit root test results for the intercept and intercept and trend model are shown in Table 1.

ADF						PI	2	
	Inte	Intercept		and Trend	Intercept		Intercep	t and Trend
Variable	Level	First Diff.	Level	First Diff.	Level	First Diff.	Level	First Diff.
RGDP	0.251	-6.265	-2.446	-6.259	0.840	-6.665	-2.446	-8.353
	(0.972)	(0.000)***	(0.351)	(0.000) ***	(0.993)	(0.000)***	(0.351)	(0.000)***
EC1	0.295	-4.862	-1.890	-4.993	0.214	-4.828	-1.991	-4.952
	(0.974)	(0.000)***	(0.638)	(0.001) ***	(0.969)	(0.000)***	(0.585)	(0.001)***
EC2	-1.981	-7.125	-1.867	-7.078	-1.888	-7.320	-1.758	-7.289
	(0.293)	(0.000)***	(0.649)	(0.000)***	(0.333)	(0.000)***	(0.702)	(0.000)***
HC1	-1.821	-1.379	1.838	-2.728	-1.053	-6.224	-2.296	-6.134
	(0.362)	(0.577)	(1.000)	(0.233)	(0.722)	(0.000)***	(0.424)	(0.000)***
HC2	-1.313	-1.977	-1.337	-2.050	-1.541	-7.041	-1.779	-6.991
	(0.608)	(0.294)	(0.856)	(0.548)	(0.501)	(0.000)***	(0.693)	(0.000)***
BC	0.129	-4.034	-3.007	-4.045	-0.025	-3.946	-2.081	-3.958
	(0.963)	(0.003)***	(0.144)	(0.016)***	(0.948)	(0.004)***	(0.537)	(0.020)**
GOV	-2.932		-2.616	-5.712	-3.099		-2.276	-5.710
	(0.051)*		(0.275)	(0.000)***	(0.035)**		(0.435)	(0.000)***
EDU	-1.811	-5.434	-1.542	-5.672	-1.811	-5.434	1.588	-5.672
	(0.369)	(0.000)***	(0.795)	(0.000)***	(0.369)	(0.000)***	(0.773)	(0.000)***
TRADE	-1.331	-5.377	-3.593		-0.934	-6.154	-2.801	-5.862
	(0.604)	(0.000)***	(0.045)**		(0.765)	(0.000)***	(0.206)	(0.000)***

Note: 1%, 5%, and 10% significance levels are indicated by the symbols ***, **, and *, respectively. Probability values are given within the parentheses. ADF unit root test uses Schwarz information criteria, while the PP test uses the Barlett Kernell estimation method.

Table 1. Traditional Unit Root Test Results

The results show that RGDP, EC1, EC2, and BC are nonstationary at the level and stationary at their first differences. However, the remaining variables show mixed stationary types depending on model selection and unit root tests. Overall, the ARDL model is applicable under these circumstances since the series presents I (0) or I (1).

A structural break occurs when an economic crisis, war, policy change, natural disaster, sudden shocks etc., happens.⁴ If the series has a structural break, traditional unit root tests can detect a stationary series as non-stationary (Çağlar and Mert, 2019, p.125). To prevent this problem, we use ZA structural break unit root test. The results are presented in Table 2.

The null hypothesis is that the series does not have structural breaks, while the alternative hypothesis is that the series is stationary with structural breaks which occur at an unknown time. The results indicate that the HC2 variable has a structural break in models A, B, and C for 1993 and 2005 break times. Therefore, a dummy variable is introduced and included when the HC2 variable is a dependent variable in the ARDL model.

Cointegration

Five models with five different credit indicators are estimated to assess the effect of credit types on economic growth. This approach was chosen to control the influence of each credit variable separately on economic growth. The summary results of bound tests are presented in Table 3.

The calculated F statistical values exceed the upper critical values, except for model 5, thus rejecting the null hypothesis that cointegration does not exist. It appears that the series are cointegrated based on the bounds test with F statistics, but it is imperative to check the results of the t-bound test to ensure that this cointegration is valid. The calculated t statistics are greater than the upper critical values for all levels of significance for models 1 and 2. It confirms the validity of the cointegration link between enterprise credit and economic growth. In other words, no cointegration exists between HC1, HC2 and BC variables and RGDP.

Long-Run Elasticities

The fourth stage of the analysis is to estimate the coefficients of the long-run relationship determined in the previous step. The results are reported in Table 4.

Table 2. Structural Break Unit Root Test Results

	Model A (Intercept)			Model B (Trend)			Model C (Both)		
Sig. Level	1%	5%	10%	1%	5%	10%	1%	5%	10%
Critical Value	-5.34	-4.93	-4.58	-4.80	-4.42	-4.11	-5.57	-5.08	-4.82
Variable					t-Statistic				
RGDP	-3	8.765 (1999))		3.957(2002)	-4	4.310 (1999))
EC1	-3	3.036 (1998	3)	-3	2.858(2004)	-:	3.727(2002)
EC2	-3.396(1999)			3.418(2009)		4.542(2004	.)	
HC1	-4.278(1993)		-3.997(2010)		-3.887(2010))		
HC2	-5.248(1993)**		-4.480(2005)**		-4.986(1993)*		*		
BC	-3	3.966(2008)		3.228(2003)		3.568(2008	5)

Table 3. ARDL Cointegration Test Results

	DE connegration rest nesatis				
Models	Cointegration hypotheses	ARDL	F – Stat.	t – Stat.	Result
Model 1	$F(RGDP_t EC1_t, GOV_t, EDU_t, TRADE_t)$	ARDL (4,0,4,2,4)	7.239***	-4.963***	Cointegration
Model 2	F(RGDP _t EC2 _t , GOV _t , EDU _t , TRADE _{tt})	ARDL (4,0,2,0,1)	7.071***	-4.921***	Cointegration
Model 3	$F(RGDP_t HC1_t, GOV_t, EDU_t, TRADE_{t_t})$	ARDL (4,3,2,3,4)	5.235***	-1.979	No Cointegration
Model 4	$F(RGDP_t HC2_t, GOV_t, EDU_t, TRADE_{t_t})$	ARDL (4,4,3,4,1)	8.220***	-2.951	No Cointegration
Model 5	$F(RGDP_t BC_t, GOV_t, EDU_t, TRADE_{t_t})$	ARDL (4,1,4,2,4)	3.264	-1.814	No Cointegration

Note: *, **, and *** represent significance at 1%, 5%, and 10%, respectively. The critical values for F bounds test from Narayan (2004) are 5.604 - 7.172; 4.036 - 5.304; 3.374 - 4.512 for 1%, 5%, and 10% significance level, respectively. The critical values for the t bounds test (-3.96) - (-4.96); (-3.41) - (-4.36); (-3.13) - (-4.04) for 1%, 5%, and 10% significance levels, respectively. The first critical value refers lower bound, while the second represents the upper bound.

Table 4. Long-Run Coefficient Tests Results

Variable	Coeff	icient
	Model 1	Model 2
EC1	0.2184***-(0.0001)	-
EC2	-	0.1847*** / (0.000)
GOV	-0.4874***-(0.0003)	-0.1788* / (0.0561)
TRADE	0.0039-(0.9689)	-0.0444 / (0.3147)
EDU	0.2873**-(0.0392)	-0.2444*** / (0.0000)

⁴ The structural breaks are identified when a time series' mean, trend, or both changes (Çağlar and Mert, 2019, p.125).

The long-run test results reveal that enterprise credit positively impacts economic growth. Specifically, a 1% increase in EC1 and EC2 will increase economic growth by 0.21 and 0.18%, respectively. We expected the GOV variable to have a positive sign but concluded it had a negative sign during the study period. It is possible for government expenditures to negatively affect the growth of the economy if they force the private entrepreneur out of the market, cause economic rent, and create distortions in the market. Increasing spending in the public sector but channeling this spending to less productive areas can also result in negative effects. The models show no effect of trade variables on economic growth. The effect of the education variable on economic growth is sensitive to different measures of enterprise credit. This variable is used in the model to capture the role of human capital accumulation, and the expected sign of the variable is positive, as in Model 1.

Diagnostics

Several diagnostic tests are required to decide whether there is serial correlation or heteroscedasticity in the residual of predicted ARDL models, as well as for specification error, normality problem, and parameter stability. If there is no diagnostic problem, it means the goodness of fit of ARDL models is met. We perform a variety of diagnostics and stability tests to achieve this goal. We applied Breusch (1978) and Godfrey's (1978) Lagrange Multiplier (LM) test for serial correlation; Ramsey's (1969) RESET test for functional form; Breusch and Pagan's (1979) test for heteroscedasticity; Jarque and Bera's (1980) test for normality. The diagnostic analyses of the models indicate no autocorrelation, heteroskedasticity, and model specification error. The normality assumption is also met. Table 5 shows the diagnostic test results.

(CUSUM) and the cumulative sum of squares of recursive residuals (CUSUMSQ). Figures 1 and 2 present the parameter stability test results. According to CUSUM and CUSUMSQ stability tests, all coefficients are stable.

Table 5. Diagnostic Test Results

Diagnostic Tests	Model 1	Model 2
Serial Correlation (Breusch-Godfrey)	2.985 / (0.1045)	1.969 / (0.1511)
Heteroskedasticity (Breusch-Pagan)	0.759 / (0.7136)	1.648 / (0.1599)
Model Specification (Ramsey-Reset):	(0.474 / (0.5050)	0.192 / (0.6659)
Normality (Jarque-Bera):	5.014 / (0.081)	0.744 / (0.6890)







Short-Run Elasticities

ECM is estimated to provide for short-run coefficients of the ARDL model. The findings are presented in Table 6.

The ECM is calculated as -1.316 and -1.740 in models. These coefficients must be negative and statistically significant for the error correction mechanism to function. Based on these findings, the error correction coefficient is negative and statistically significant in both models. It is anticipated that the deviations from the short-run equilibrium will improve after a 1/|-1.316|=0.76 and 1/|-1.740|=0.57 period of time, meaning in 8 and 6months, and reaching the long-run equilibrium in models 1 and 2, respectively.

Causality

A causality relationship between two-time series may exist if part of the information contained within one is derived from another. The concept of causality must be examined from two different perspectives. The first method of obtaining causality is through the use of VAR models. The second one is causality derived through cointegration equations. The long-run and short-run causality can be determined using the error correction mechanism obtained from cointegration equations (Mert and Çağlar, 2019, p.339). Cointegration equations are used in our study to derive causality. According to Engle and Granger (1987), the existence of at least one causality is guaranteed if there is cointegration between variables. In other words, if the variables are cointegrated, a causality analysis obtained from cointegration can be conducted. It is not possible to perform a causality analysis if a cointegration relationship does not exist. To determine one or two-way long-run causality, we conducted a bound test when credit type is dependent and economic growth is the independent variable. The results are shown in Table 7.

The findings indicate that there is cointegration between variables when EC1, EC2, and BC are dependent variables.⁵ The long-run estimates of coefficients are provided in Table 8.

Since the long-run coefficients of EC1 and EC2 in models 1 and 2 and RGDP in models 6 and 7 are statistically significant, the findings suggest that there is bidirectional causality between EC1 and RGDP and EC2 and RGDP in the long-run. There is no unidirectional or bidirectional causality between other types of credit and economic growth in the long-run. ECM is found to be negative and statistically significant in the models.⁶

Table 6. Short-Run Coefficient Tests Results

Variable	Coefficient	
Variable	Model 1	Model 2
ΔRGDP _{t-1}	0.981*** / (0.0001)	0.868*** / (0.0001)
ΔRGDP _{t-2}	0.261 / (0.1029)	1.022*** / <u>(</u> 0.0001)
ΔRGDP _{t-3}	0.732*** / (0.0006)	0.753*** / <u>(</u> 0.0005)
ΔGOV	-0.255*** / (0.0056)	-0.176** / <u>(</u> 0.0168)
ΔGOV _{t-1}	0.313*** / (0.0013)	0.203*** / <u>(</u> 0.0090)
ΔGOV _{t-2}	0.274** / (0.0136)	
ΔGOV _{t-3}	0.775*** / (0.0000)	
ΔTRADE	0.186*** / (0.0094)	0.189*** / (0.0079)
ΔTRADE _{t-1}	0.286*** / (0.0014)	
ΔTRADE _{t-2}	-0.030 / (0.5771)	
ΔTRADE _{t-3}	0.434*** / (0.0001)	
ΔEDU	0.547*** / (0.0017)	
ΔEDU _{t-1}	-0.583*** / (0.0003)	
Constant	34.307*** / (0.0000)	49.167*** / (0.0000)
Trend	0.042*** / (0.0000)	0.092*** / (0.0000)
ECM _{t-1}	-1.316*** / (0.0000)	-1.740*** / (0.0000)
R ²	0.73	0.61
F Statistics	6.725*** / (0.000)	7.219*** / (0.000)

Table 7. ARDL Cointegration Test Results

Models	Cointegration hypotheses	ARDL	F – Stat.	t – Stat.	Result
Model	$F(EC1_t RGDP_t, GOV_t, EDU_t, TRADE_{t_t})$	ARDL (2,4,4,4,2)	7.778***	-4.657***	Cointegration
Model	$F(EC2_t RGDP_t, GOV_t, EDU_t, TRADE_{t_t})$	ARDL (1,4,0,2,4)	9.176***	-5.819***	Cointegration
Model	F(HC1 _t RGDP _t , GOV _t , EDU _t , TRADE _t)	ARDL (4,4,3,4,4)	9.282***	-2.245	No Cointegration
Model	F(HC2 _t RGDP _t , GOV _t , EDU _t , TRADE _t Dummy)	ARDL (4,3,3,3,3,3)	48.954***	3.237	No Cointegration
Model 1	$0 F(BC_t RGDP_t, GOV_t, EDU_t, TRADE_{t_t})$	ARDL (2,1,4,4,0)	9.096***	-5.219***	Cointegration

⁵ Since the HC2 variable has a structural break, we form a dummy variable representing the 1993 break time and included it in the

⁶ The short-run estimation results are available upon request.

cointegration model.

Conclusions

The Turkish economy has grown rapidly, and the amount of credit has expanded over the past twenty years, which has paved the way for this study. For the period of 1986-2021, the findings acquired in the present study, which evaluates the effects of credit composition on EG in Türkiye, differ considerably depending on exactly what type of credit is being examined. Utilizing the credits given to enterprises and households, a time series analysis is performed, and the outcomes of the models are presented.

Empirical results indicate a positive link between EC and EG, while HC does not contribute to real EG in the long-run. Furthermore, while there is a two-way causality between EC and EG in the short and long-run, there has been no causality link between HC and EG in the short or long-run. The results obtained for Türkiye are similar to many studies in literature, such as Beck et al. (2012), Sassi and Gasmi (2014), Benczúr et al. (2018), Majeed et al. (2019), Škare, Sinkovic, and Rochon (2019). Therefore, credit market development should be directed primarily to productive investments and innovations instead of HC to achieve a positive effect on EG. Regarding the context of reforms that foster the Turkish financial sector and EG, this study's findings point out that it is in the country's interest to develop financial policies concerning credit distribution. The government should support increasing the share of EC in this regard. The influences of HC are currently not evident in Türkiye, but it should be noted that increases in HC may negatively affect EG. It is imperative that monetary and fiscal authorities strictly control the proportion of credit going to the household sector.

Moreover, the study's findings show that the lending structure affects the extent and persistence of FD on EG. In other words, the lending structure determines how much FD impacts EG. For the period of 1986-2021 in Türkiye, the total amount of banking credit given to the private sector has been presented to have no effect on EG, while ECs have a positive effect. Therefore, it can be concluded that it is not relevant how much money financial institutions lend, but to whom and for what purposes it is lent is quite significant.

Several research areas can be explored in the future based on the results of this study. It is possible to extend and improve this study to review the link between bank credit activities and other macroeconomic variables in Türkiye. Furthermore, there are limitations to this study due to the lack of time series data on ECs and the inability to determine the sectors in which ECs are spent. This analysis will need to be revisited once the required data are obtained regarding sectors ECs are provided and the types of HCs, such as mortgage credits, auto credits, and consumer credits have long data.

Additionally, since traditional time series methods are employed within this study, it is possible to analyze and improve the study using more modern time series techniques.

Extended Abstract

One of the most important goals of economics, which seeks ways to meet unlimited needs with limited resources, is to build a welfare society by raising the living standards of individuals. One of the ways to raise the living standards of individuals is by increasing the per capita income level; increasing per capita income is possible by increasing production. The increase in the production of goods and services is one of the most fundamental issues that the concept of EG is concerned with. Thoughts and policies that will boost EG have always been important in economics. One of the factors that play a significant role in increasing production is capital. The effective conversion of individuals' savings into capital and investments depends on robust FSs in countries. FS maximizes efficiency while minimizing risk for savers by reducing the costs of obtaining and assessing information through financial intermediaries. An efficient FS that provides more investment in the country's economy will also accelerate EG.

The liberalization and evolution of countries' money and capital markets have made financial development an important research area. There has also been a growing interest in this field, as many influential economists of the 20th century have asserted that financial development has an impact on growth. Researchers have tried to find out whether there is an association between financial development and economic growth through both theoretical and empirical investigations.

The literature explores the link connecting financial development and the real economy, emphasizing the singular roles of entrepreneur/enterprise and household credits. Many studies in literature, however, examine financial development as a whole and neglect to analyze the individual influences of its elements. A credit composition is a measure of how bank credits are divided between enterprises and households. We will gain insight into the channels by which the financial system affects the economy through this decomposition. It is the goal of this study to investigate the link between credit composition and economic growth. It is believed that the tie connecting credit composition and growth may provide insights into the finance-growth relation.

This study looked into the short and long-term influences of credits extended to enterprises and households on economic growth in Türkiye between 1986 and 2021. A thorough examination of this link in the context of Türkiye is necessary. The Turkish economy has undergone different economic periods with different characteristics based on the changing conditions of the time and international conditions. Several factors shaped the formation and development of the FS, including the circumstances and the policies implemented as a response to the problems of the period. Identifying the current structure and governance of the Turkish FS requires a thorough understanding of its development. In the aftermath of the 2008 financial crisis, Türkiye realized large inflows of foreign capital at low costs. The enrichment of Türkiye in terms of foreign resources enabled the residents of Türkiye to benefit from these resources through the credits given by the banks. The rapid credit growth in the Turkish economy in recent years and the increase in the ratio of credits to Gross Domestic Product have also increased the power of loans to affect various macroeconomic variables.

It is perceptible from the literature that financial development and economic growth have a strong tie, but it is noteworthy that there are relatively few studies that examine the tie connecting the type of credit and growth. The first study on the influences of credit type on various macroeconomic variables was conducted by Beck, Büyükkarabacak, Rioja, and Valev (2012). For the first time, they systematically examined the influence of household and enterprise credits on growth in one of the most comprehensive studies in this field. Researchers found that enterprise credits stimulate economic growth, while household credits do not, based on data from 45 developed and developing countries in the 1994-2005 period. This study was trailed by a limited number of studies that used panel data analysis. Time series analysis was employed in two studies by Majeed, Iftikhar, and Atiq (2019) as well as Škare, Sinkovic, and Rochon (2019). A study conducted by Majeed et al. (2019) in Pakistan using the ARDL model found that enterprise credits were positive and significant for Pakistan's economic growth, but household credits did not. In their analysis for Poland using the Johansen cointegration test, Škare et al. (2019) concluded that business and household loans have a significant influence on economic growth. There has been no study that examines the influence of credit type on economic growth using time series analysis for Türkiye.

Empirical results indicate a positive link between EC and EG, while HC does not contribute to real EG in the long-run. Furthermore, while there is a two-way causality between EC and EG in the short and long-run, there has been no causality link between HC and EG in the short or long-run. The results obtained for Türkiye are similar to many studies in literature, such as Beck et al. (2012), Sassi and Gasmi (2014), Benczúr et al. (2018), Majeed et al. (2019), Škare, Sinkovic, and Rochon (2019). Therefore, credit market development should be directed primarily to productive investments and innovations instead of HC to achieve a positive effect on EG. Regarding the context of reforms that foster the Turkish financial sector and EG, this study's findings point out that it is in the country's interest to develop financial policies concerning credit distribution. The government should support increasing the share of EC in this regard. The influences of HC are currently not evident in Türkiye, but it should be noted that increases in HC may negatively affect EG. It is imperative that monetary and fiscal authorities strictly control the proportion of credit going to the household sector.

Moreover, the study's findings show that the lending structure affects the extent and persistence of FD on EG. In other words, the lending structure determines how much FD impacts EG. For the period of 1986-2021 in

Türkiye, the total amount of banking credit given to the private sector has been presented to have no effect on EG, while ECs have a positive effect. Therefore, it can be concluded that it is not relevant how much money financial institutions lend, but to whom and for what purposes it is lent is quite significant.

References

Altunç, Ö. F. (2008). Türkiye'de finansal gelişme ve iktisadi büyüme arasındaki nedenselliğin ampirik bir analizi. Eskişehir Osmangazi Üniversitesi İİBF Dergisi, 3(2), 113-127.

Angjelkovska, T., Hani E., and Eliskovski, M. (2016). The effect of enterprise and household credit on economic growth and real exchange rate dynamics: Evidence from SEE countries. National Bank of the Republic of North Macedonia Working Papers. https://www.econstor.eu/bitstream/10419/173715/1/wp-nb-rm-2016.pdf

Ang, J. B., & McKibbin, W. J. (2007). Financial liberalization, financial sector development and growth: Evidence from Malaysia. Journal of Development Economics, 84(1), 215-233.

Arcand, J. L., Berkes, E., and Panizza, U. (2015). Too much finance?. *Journal of Economic Growth 20*(2): 105-148.

Arestis, P., Demetriades, P. O., & Luintel, K. B. (2001). Financial development and economic growth: The role of stock markets. Journal of Money, Credit, and Banking, 16-41.

Aslan, Ö., & Korap, H. L. (2006). Türkiye'de finansal gelişme ekonomik büyüme ilişkisi. Muğla Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, (17), 1-20.

Aslan, Ö., & Küçükaksoy, İ. (2006). Finansal gelişme ve ekonomik büyüme ilişkisi: Türkiye ekonomisi üzerine ekonometrik bir uygulama. Istanbul University Econometrics and Statistics e-Journal, (4), 25-38.

Bayar, M., and Varışlı, N. (2020). COVID-19 pandemisinin Türkiye'de tüketici kredileri hacmi üzerindeki etkisi: 2013-2020 dönemi zaman serisi analizi. *Anadolu Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi 21*(3): 85-99.

Beck, T., Levine, R., & Loayza, N. (2000). Finance and the sources of growth. Journal of Financial Economics, 58(1-2), 261-300.

Beck, T., & Levine, R. (2002). Industry growth and capital allocation: Does having a market-or bank-based system matter?. Journal of Financial Economics, 64(2), 147-180.

Beck, T., Büyükkarabacak, B., Rioja, F. K., & Valev, N. T. (2012). Who gets the credit? And does it matter? Household vs. firm lending across countries. *The BE Journal of Macroeconomics*, *12*(1).

Benczúr, P., Karagiannis, S., and Kvedaras, V. (2019). Finance and economic growth: Financing structure and non-linear impact. *Journal of Macroeconomics* 62. https://doi.org/10.1016/j.jmacro.2018.08.001

Bernanke, B., and Blinder, A. (1992). The federal funds rate and the channels of monetary transmission. *The American Economic Review* 82(4): 901-921.

Bezemer, D., Grydaki, M., and Zhang, L., (2016). More mortgages, lower growth?. *Economic Inquiry* 54(1): 652-674.

Breusch, T. S., (1978). Testing for autocorrelation in dynamic linear models. *Australian economic papers* 17(31): 334-355.

Breusch, T. S., and Pagan, A. R., (1979). A simple test for heteroscedasticity and random coefficient variation. *Econometrica: Journal of the Econometric Society*, 1287-1294.

Büyükkarabacak, B., and Krause, S., (2009). Studying the effects of household and firm credit on the trade balance: The composition of funds matters. *Economic Inquiry* 47(4): 653-666.

Calderón, C., & Liu, L. (2003). The direction of causality between financial development and economic growth. Journal of Development Economics, 72(1), 321-334.

Caporale, G. M., Howells, P., & Soliman, A. M. (2005). Endogenous growth models and stock market development: Evidence from four countries. Review of Development Economics, 9(2), 166-176

Central Bank of Republic of Turkiye, Comparative Country Statistics Database. https://evds2.tcmb.gov.tr/index.php?/evds /serieMarket.

Choe, C., & Moosa, I. A. (1999). Financial system and economic growth: the Korean experience. World Development, 27(6), 1069-1082.

Çeştepe, H., & Yıldırım, E. (2016). Türkiye'de finansal gelişme ve ekonomik büyüme ilişkisi. Uluslararası Yönetim İktisat ve İşletme Dergisi, 12(12), 12-26.

De Gregorio, J., & Guidotti, P. E. (1995). Financial development and economic growth. World Development, 23(3), 433-448.

Demetriades, P. O., & Hussein, K. A. (1996). Does financial development cause economic growth? Time-series evidence from 16 countries. Journal of Development Economics, 51(2), 387-411.

Demirezen, Ö., (2015). Türkiye'de kredilerin özel tüketim harcamalarına etkisi [Uzmanlık Tezi]. *T.C. Kalkınma Bakanlığı*, 2941.

Dickey, D. A., and Fuller, W. A .,(1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica* 49: 1057-1072.

Dynan, K. E., Elmendorf, D. W., and Sichel, D. E., (2006). Can financial innovation help to explain the reduced volatility of economic activity?. *Journal of Monetary Economics* 53(1): 123-150.

Engle, R., and Granger, C., (1987). Cointegration and error correction representation: Estimation and testing. *Econometrica* 55: 251–76.

Enders, W., (1995). *Applied Econometric Time Series*. New York: John Wiley & Sons Inc.

Erdem, E., (2014). *Para, banka ve finansal sistem*. (6. baskı). Ankara: Detay Yayıncılık, 222.

Ghatak S, Siddiki J U (2001) The use of the ARDL approach in estimating virtual exchange rates in India. *Journal of Applied Statistics* 28(5): 573-583.

Godfrey, L. G., (1978). Testing against general autoregressive and moving average error models when the regressors include lagged dependent variables. *Econometrica: Journal of the Econometric Society*, 1293-1301.

Günal, M., (2010). *Para, banka ve finansal sistem*. (3. baskı). Ankara: Nobel Yayın Dağıtım, 83.

Halicioglu, F., (2008). The J-curve dynamics of Turkey: An application of ARDL model. Applied Economics 40(18): 2423-2429.

Hayaloğlu, P. (2015). Kırılgan beşli ülkelerinde finansal gelişme ve ekonomik büyüme ilişkisi: Dinamik panel veri analizi. Ekonomik ve Sosyal Araştırmalar Dergisi, 11(1), 131-144.

Hilbers, P., Otker-Robe, I., Pazarbasioglu, C., & Johnsen, G. (2005). Assessing and managing rapid credit growth and the role of supervisory and prudential policies. IMF Working Paper 05/151.

Irandoust, M., (2021). Credit composition and economic growth: Households versus enterprises. Estudios de Economía Aplicada 39(3).

Jalil, A., & Ma, Y. (2008). Financial development and economic growth: Time series evidence from Pakistan and China. Journal of Economic Cooperation, 29(2), 29-68.

Jarque, C., and Bera, A., (1980). Efficient tests for normality, homoscedasticity, and serial independence of regression residuals. Economics Letters 6: 255-259.

Johannes, T. A., Njong, A. M., & Cletus, N. (2011). Financial development and economic growth in Cameroon, 1970-2005. Journal of Economics and International Finance, 3(6), 367.

Johansen, S., (1992) Cointegration in partial systems and the efficiency of single-equation analysis. *Journal of Econometrics* 52: 389–402.

Johansen, S., and Juselius, K., (1990). Maximum likelihood estimation and inference on cointegration–with application to the demand for money. *Oxford Bulletin of Economics* and Statistics 52: 169–210.

Jung, W. S. (1986). Financial development and economic growth: International evidence. Economic Development and Cultural Change, 34(2), 333-346.

Kar, M., & Pentecost, E. J. (2000). Financial development and economic growth in Turkey: Further evidence on the causality issue. *Loughborough University Economic Research Papers*, 00/27

Kandır, S. Y., İskenderoğlu, Ö., & Önal, B. (2007). Finansal gelişme ve ekonomik büyüme arasındaki ilişkinin araştırılması. Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 16(2), 311-326.

Khan, M. S., and Senhadji, A. S., (2003). Financial development and economic growth: A Review and new evidence. Journal of African Economies 12(2): 89-110.

Leon, F., (2016). Enterprise credit, household credit and growth: New evidence from 126 countries. Luxembourg University CREA Discussion Paper, https://wwwfr.uni.lu/ recherche/fdef/dem/publications2/discussion_papers

Loayza, N. V., & Ranciere, R. (2006). Financial development, financial fragility, and growth. Journal of Money, Credit, and Banking, 1051-1076.

Majeed ,S., Iftikhar, S. F., and Atiq, Z., (2019). Credit activity and growth performance: Evidence from panel data. *Pakistan Journal of Applied Economics 29*(1): 107-129.

Mengüç, İ. T., (2017). Türkiye'de bankacılık sektörünün yapısal değişimi. *Bankacılık ve Sermaye Piyasası Araştırmaları Dergisi* 1(3): 1-14.

Mert, M., and Çağlar, A. E., (2019). Eviews ve Gauss Uygulamalı Zaman Serileri Analizi. Ankara: Detay Yayıncılık, 125-339.

Narayan, P. K., (2004). New Zealand's trade balance: Evidence of the J-curve and granger causality. *Applied Economics Letters* 11(6): 351-354.

Narayan, P. K., (2005). The saving and investment nexus for China: Evidence from cointegration tests. Applied Economics 37(17): 1979-1990.

Özcan, B., & Ari, A. (2011). Finansal gelisme ve ekonomik büyüme arasındaki iliskinin ampirik bir analizi: Türkiye örnegi. Business and Economics Research Journal, 2(1), 121.

Özen, E., and Vurur, N. S., (2013). Türkiye'de mevduat banka kredisi ve ekonomik büyüme ilişkisinin incelenmesi. Uşak Üniversitesi Sosyal Bilimler Dergisi 6(3): 117-131.

Öztürk, N., Barışık, S., & Darıcı, H. K. (2010). Gelişmekte olan piyasalarda finansal derinleşme ve büyüme ilişkisi: Panel veri analizi. Uluslararası Yönetim, İktisat ve İşletme Dergisi, 6(12), 95-119.

Pesaran, M. H., Shin, Y., and Smith, R. J., (2001). Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics 16(3): 289-326.

Phillips, P., and Hansen, B., (1990). Statistical inference in instrumental variables regression with I(1) process. Review of Economic Studies 57: 99–125.

Phillips, P. C. B., and Perron, P., (1988). Testing for a unit root in time series regression. Biometrika 75: 335–59.

Rajan, R., & Zingales, L. (1996). Financial dependence and growth.NBER Working Paper Series, 5758.

Rioja, F., & Valev, N. (2004). Does one size fit all?: A reexamination of the finance and growth relationship. Journal of Development Economics, 74(2), 429-447.

Ramsey, J. B., (1969). Tests for specification errors in classical linear least-squares regression analysis. Journal of the Royal Statistical Society Series B: Statistical Methodology 31(2): 350-371.

Samargandi, N., Fidrmuc, J., & Ghosh, S. (2015). Is the relationship between financial development and economic growth monotonic? Evidence from a sample of middle-income countries. World Development, 68, 66-81.

Sassi, S., and Gasmi, A., (2014). The Effect of enterprise and household credit on economic growth: New evidence from European Union countries. Journal of Macroeconomics 39: 226-231.

Škare, M., Sinković, D., and Porada-Rochoń, M., (2019). Financial development and economic growth in Poland 1990-2018. Technological and Economic Development of Economy 25(2): 103-133. Swamy, V., & Tulasimala, B. (2012). Financial intermediaries and economic development–A study of transaction costs of borrowing for the poor. Available at SSRN 2126810. https://mpra.ub.uni-muenchen.de/49601/, Accessed Date: 17.06.2023

Tabash, M. I., & Dhankar, R. S. (2014). Islamic financial development and economic growth--Empirical evidence from United Arab Emirates. Journal of Emerging Economies and Islamic Research, 2(3), 15-31.

Togan, S., and Berument, H., (2011). Cari işlemler dengesi, sermaye hareketleri ve krediler. *Bankacılar Dergisi* 78(9).

Tunay, B. K., (2005. Finansal sistem, yapısı, işleyişi, yönetimi ve ekonomisi. İstanbul: Birsen Yayınevi, 46.

World Bank, World Development Indicators Database. https://databank.worldbank.org/source/world-developmentindicators.

Xu, Z. (2000). Financial development, investment, and economic growth. *Economic Inquiry*, *38*(2), 331-344.



A Few Comments on the Article with Topic "Social Municipalism Applications in Turkey and Example of Bornova Municipality"

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ÖZ

Letter To The Editor	ABSTRACT
History	Today, the most important support for states to maintain their "social state" approach comes from local governments. Local administrations, which are the closest administrative units to the people, play an important
Received: 28/07/2023 Accepted: 26/09/2023	role in the realization of social policies that the central government is obliged to maintain. In our country, which has a deep-rooted political, historical and cultural background, the position of local governments in the social policy system is gradually strengthening. The social practices of local governments are defined as social municipalism. The concept of social municipalism generally refers to municipalities that develop policies to solve
Jel Codes: H83	unemployment and employment problems, engage in activities related to education, culture and health, direct public expenditures related to these areas and have an effective position in establishing social justice. Municipalities that have adopted the social municipalism model also represent the social state understanding locally by providing social municipal activities in cases where the social state is insufficient. The practices of municipalities, which continue to serve with limited resources and devotion in the conditions of our country, within the scope of the concept of social municipalism attract the attention of academic researchers and there
	are studies in the literature on the applications of social municipalism attract the attention of academic researchers and there are studies in the literature on the applications of social municipalism in various provinces of our country. This letter is about Ayse Nur Balcilar's and Serkan Cinarli's study titled "Social Municipalism Applications in Turkiye and Example of Bornova Municipality ", which is on pages 2020; 21(2): 122-156 of Sivas Cumhuriyet University Journal of Economics and Administrative Sciences.

Keywords: Social Municipality, Social State, Social Service.

"Türkiye'de Sosyal Belediyecilik Uygulamaları ve Bornova Belediyesi Örneği" Başlıklı Makaleye Dair Birkaç Not

Süreç Geliş: 28/07/2023 Kabul:26/09/2023 Jel Kodları: H83	Günümüzde devletlerin "sosyal devlet" anlayışını devam ettirebilmesindeki en önemli destek yerel yönetimlerden gelmektedir. Halka en yakın yönetim birimi olan yerel yönetimler merkezi yönetimin sürdürmekle yükümlü olduğu sosyal politikaların hayata geçirilmesinde önemli bir rol oynamaktadırlar. Köklü bir siyasi, tarihi ve kültürel birikime sahip olan ülkemizde yerel yönetimlerin sosyal politika sistemi içerisindeki konumları giderek sağlamlaşmaktadır. Yerel yönetimlerin yapmış oldukları sosyal ougulamalar sosyal belediyecilik olarak tanımlanmaktadır. Sosyal belediyecilik kavramı genel olarak işsizlik ve istihdam sorununun çözümüne yönelik politikalar geliştiren, eğitim, kültür ve sağlık ile alakalı faaliyetler içerisinde bulunan, bu alanlarla alakalı kamusal harcamaları yönlendiren ve sosyal adaletin tesis edilmesinde etkin bir konumda bulunan belediyeleri ifade etmektedir. Sosyal belediyecilik modelini benimsemiş belediyeler, sosyal devletin yetersiz kaldığı durumlarda sosyal belediyecilik faaliyetlerini sağlayarak, sosyal devlet anlayışını da yerel olarak temsil etmektedirler. Ülkemiz koşullarında sınırlı kaynaklarla ve özveriyle hizmet vermeye devam eden belediyelerin, sosyal belediyecilik kavramı kapsamında yapmış oldukları uygulamalar akademik olarak da araştırmacıların ilgisini çekmektedir ve			
Copyright	literatürde ülkemizin çeşitli illerinde devam eden sosyal belediyecilik uygulamaları ile alakalı yapılan çalışmalar bulunmaktadır. Bu mektup Sivas Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi'nin 2020; 21(2): 122- 156 sayfalarında yer alan Ayşe Nur Balcılar'ın ve Serkan Çınarlı'nın "Türkiye'de Sosyal Belediyecilik Uygulamaları ve Bornova Belediyesi Örneği" başlıklı makalesi ile ilgilidir. Anahtar Kelimeler: Sosyal Belediyecilik, Sosyal Devlet, Sosyal Yardım			
International License				
a 💟 sakbay@adiyaman.edu.tr	https://orcid.org/0000-0002-2356-9414			
<i>How to Cite:</i> Engin, S. (2023). Social Municipalism Applications in Turkey and Example of Bornova Municipality, Journal of Economics and Administrative Sciences, 24(4), 671-672. DOI: 10.37880/cumuiibf.1333797				

Giriş

Dear Editor,

I have read with interest Ayşe Nur Balcılar's and Serkan Cinarlı's study titled "Social Municipalism Applications in Turkey and Example of Bornova Municipality", which is on pages 2020; 21(2): 122-156 of Sivas Cumhuriyet University Journal of Economics and Administrative Sciences.

I congratulate the authors for this study, which aims to examine the importance and characteristics of local governments, which have gained importance with globalization, to examine the concepts of social municipality within the framework of their newly assumed duties and responsibilities, and to examine the activities carried out in this field with the example of Bornova Municipality.

In the conclusion part of the study, the authors mentioned that some administrators could not fully grasp the importance of social municipality and, accordingly, they could not meet the current need because they allocated insufficient resources to social municipality activities and municipalities gave priority to seasonal, short-term, easy and politically rent-generating activities. Instead of short-term temporary aids, they suggested that activities such as providing a job and improving their technical and social skills should be included and studies should be carried out to eliminate poverty in the long term. The authors also emphasized that one of the biggest shortcomings in the field of the social municipality is social tissue studies. They stated that social tissue studies have a vital importance and that studies in this field should be increased. They stated that the service areas are not clear because there is a confusion in the task sharing between the municipalities and the central government.

I concur with the perspectives put forth by the authors, and I would like to further emphasize the significance of strategic municipal planning in fostering municipal development. It is plausible that a judicious implementation of such planning could potentially rectify

the misapplications highlighted by the authors. It also holds importance within the framework of enduring developmental constraints faced by any self-governing community, encompassing financial, human, material, and organizational aspects. Due to these inherent constraints, it is typically unfeasible to simultaneously activate all potentials and eradicate all obstacles to development, as the available resources are insufficient for such comprehensive endeavors. This circumstance renders it unfeasible for the municipal to fulfill a diverse range of social requirements, and in the event that they are unable to address all of them within a limited timeframe, they must prioritize the most essential ones. Hence, the management of local communities is an ongoing endeavor involving decision-making and future planning. All decisions made in this context are integral to the strategic approach towards municipal development. The local development strategy assumes a fundamental and paramount role as the primary document of the local government. It serves as a guiding framework for the delivery of local services, implementation of infrastructure projects, allocation of the local budget, and formulation of spatial planning initiatives. The strategy, as comprehended in this manner, aims to identify the crucial factors and possibilities for development, outline the methodology for achieving sustainable growth, and delineate the specific areas, objectives, and initiatives of the socio-economic policy to be implemented within the local government unit in the upcoming years. Best Regards.

Kaynaklar

Balcılar, A. N., & Çınarlı, S. (2020). Türkiye'de Sosyal Belediyecilik Uygulamaları ve Bornova Belediyesi Örneği. Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi, 21(2), 122-156.