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# The Role of In-Store Consumer Movements in Purchase Decision

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**ABSTRACT**

Customer contact centres are one of the types of businesses that support digital operations, where goods and services are offered as a bundle of products. Through these centres, consumers can both access sub-services related to telecommunication services and purchase the technologies that will enable this access. The fact that the telecommunications sector has become a locomotive sector in many countries worldwide makes it necessary to understand customers' behaviour. At this point, it is also essential to investigate how they behave in contact centres, which are part of the holistic channel. This study examines the behaviour of store customers who visit contact centres using non-computational methods. The study also compares the observed behaviours according to demographic data and tries to understand the dynamics of the purchase decision process. In this way, the effects of shoppers' profile characteristics, in-store movements and store structure on the termination status and duration of shopping were revealed. While differences were detected according to gender, no significant differences were found according to age in the findings. Similarly, the importance of consumers' in-store movements for sales was presented. It is thought that the results obtained in the research will contribute to both customer contact centres and future research, especially the local authorities of the company where the store data is received.

***Keywords:*** Customer Tracking, In-Store Behaviour, Camera Monitoring, Communication Center, Consumer Behaviour

# Mağaza İçi Tüketici Hareketlerinin Satın Alma Kararındaki Rolü

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**ÖZ**

Müşteri iletişim merkezleri, mal ve hizmetlerin bir ürün demeti olarak sunulduğu dijital operasyonları destekleyen işletme türlerinden biridir. Bu merkezler aracılığıyla tüketiciler hem telekomünikasyon hizmetlerine ilişkin alt hizmetlere erişebilmekte hem de bu erişimi sağlayacak teknolojileri satın alabilmektedir. Telekomünikasyon sektörünün dünya genelinde birçok ülkede lokomotif bir sektör haline gelmesi, müşterilerin davranışlarını anlamayı gerekli kılıyor. Bu noktada bütünsel kanalın bir parçası olan iletişim merkezlerinde nasıl davrandıklarının araştırılması da gereklidir. Bu çalışma, iletişim merkezlerini ziyaret eden mağaza müşterilerinin davranışlarını hesaplamalı olmayan yöntemler kullanarak incelemektedir. Çalışma aynı zamanda gözlemlenen davranışları demografik verilere göre karşılaştırmakta ve satın alma karar sürecinin dinamiklerini anlamaya çalışmaktadır. Bu sayede alışverişçilerin profil özelliklerinin, mağaza içi hareketlerinin ve mağaza yapısının alışverişi sonlandırma durumu ve süresi üzerindeki etkileri ortaya konulmuştur. Bulgularda cinsiyete göre farklılıklar hesaplanırken, yaşa göre anlamlı farklılıklar elde edilememiştir. Benzer şekilde, satış yapılabilmesi için tüketicilerin mağaza içi hareketlerinin önemi ortaya çıkartılmıştır. Araştırmada elde edilen sonuçların başta mağaza verilerinin alındığı firmanın yerel yetkilileri olmak üzere hem müşteri iletişim merkezlerine hem de ileride yapılacak araştırmalara katkı sağlayacağı düşünülmektedir.



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## Introduction

Today's consumers can buy many products through online stores they are willing to. However, brick-and-mortar stores still maintain their importance over online stores, especially in cases where goods and services are in the form of a bundle, and the specific characteristics of this bundle increase. Although the digital age has brought many challenges for physical retailers (Spanke, 2020, p. 2), consumers still continue to visit physical stores, and physical stores still exist (Bäckström & Johansson, 2017). The statistics on physical retail in a reliable report showing that retail sales worldwide grew by 5%, exceeding $27 trillion (Brophy, 2022). The same report emphasised that this figure will reach $31.3 trillion by 2025 (Brophy, 2022).

On the other hand, it was emphasised that as of 2021, consumers in America spent 11% more time in stores than in 2020 (Barua, 2021). In a report published by TÜİK which indicates the state of the retail sector in our country, it was observed that retail turnover increased by 16.7% in total (TÜİK, 2021). According to Helm et al. (2020), while some retail types have ended their existence, other types that adjust the product composition correctly and ensure digital continuity can continue to increase their presence.

The necessity of having different service units within a store has helped the formation of the departmental store concept. One of the types of businesses where goods and services are offered as a bundle of products and support digital operation is customer contact centres, which can be described as multi-department store types affiliated with telecommunication companies. These centres are basically what Enders and Jelassi (2000) call brick-and-mortar retailers. In addition, Teltzrow et al. (2007) emphasised that retailers with internet access are multi-channel structures. Through these centres, consumers are provided with both access to sub-services related to telecommunication services and the ability to purchase technologies that will enable this access. However, customer attitude towards the services provided depends to some extent on the design and layout of the store (Newman & Foxall, 2003). On the other hand, companies constantly change and transform their store to increase the in-store customer experience (Cavalinhos et al., 2021). Contact centres are also transformed continuously according to the changes in the concepts of brands.

In global telecommunication statistics, it is emphasised that the global market size in 2022 was approximately $2.88 trillion, which shows an increase of 9% compared to the previous year (Telecom Global Market Report, 2022). The same report also clearly emphasises that this number will be $3.82 trillion by 2026, and the primary dynamic driving the market will be the Internet of Things (IoT) (Telecom Global Market Report, 2022). Therefore, the report also indicates that wearable technologies will become an increasingly preferred product group. Finally, while the number of mobile telecommunication subscribers worldwide is 5,462,100 as of the 4th quarter of 2022, the number of mobile-connected smart and wearable devices is 11,002,378,001 (GSMA Intelligence, 2022)[1]. Similarly, the figures in our country are also remarkable. According to the 2nd Quarter Report of the Türkiye Information Technology and Communication Agency (BTK), the annual sales revenue of the companies providing mobile communication services in Türkiye reached 57,221,113.75 TL in 2021, while the total telecommunication investment made by these companies was 14,989,390.49 TL in the same year (BTK, 2022). The same report underlined that the services consumers have the most problems with and complain to telecommunication companies consist of items such as termination/temporary suspension, subscription procedures, connection/service quality, billing and incorrect/incomplete information (BTK, 2022).

Although companies try to solve customer problems with call centres and voice response systems, it is difficult to solve these problems without face-to-face contact with customers willing to communicate physically (Spanke, 2020, p. 66). This phenomenon is also true for telecommunication providers. The cost advantage of telecommunication companies indicates the necessity to maintain intensive physical contact centres and very high online investments. Ali (2016) attributes the sustainability of omnichannel distribution strategies of telecommunication companies to the continuity of physical stores and states that these stores are a suitable alternative for telecommunication companies to provide a more intensive service to their customers. There is an undeniable need for a physical environment and physical evidence for the staff to interact with the customer to capture the service's quality perception (Thusyanthy & Senthilnathan, 2011). Therefore, it is also essential to investigate how they behave in contact centres, which are part of the holistic channel, by understanding the behaviour of telecommunication customers.

The telecommunications sector is very active in Türkiye. According to the second quarter statistics of 2022 published by BTK, the number of fixed telephone subscribers is currently 11.8 million, while the number of mobile subscribers is 88.5 million (BTK, 2022). The same report shows that the number of broadband internet subscribers is 89.5 million, while 63.2 million users have switched to 4.5 G technology in mobile internet (BTK, 2022). In the same report, which excludes people aged 0-9 who do not receive telecommunication services, the prevalence rate of mobile devices interacting through machine communication is 111.9% (BTK, 2022). This statistic shows that, on average, a person uses more than one smart device.

Building strong relations with customers is primarily based on the analysis of data obtained from the customer. However, classical data collection methods cause a bias in customers' answers and make it difficult to fully understand actual consumer behaviour and the possible underlying reasons (Pannucci & Wilkins, 2010). While answering the questions directed to them, customers may give answers that do not reflect the truth. However, it is customary to think that monitoring their behaviours in the shopping

[1] *The relevant information is the data accessed as of 16.11.2022 at 10:52 and continues to increase as of the moment.*

environment and not creating an experimental prerequisite will allow them to exhibit their natural behaviours more.

According to Newman & Foxall (2003), store layouts and the products offered within this layout can create brand awareness in customers who shop in the store environment. However, it is understood from the literature that monitoring customer behaviour in the store is an effective mechanism for understanding customer purchasing decisions (Aiolfi et al., 2022; Cheema, 2018; Gong et al., 2022; Grewal et al., 2018; Groeppel-Klein, 2005; Han et al., 2022; Kim et al., 2022; Yıldırım & Aydın, 2012). Phillips & Bradshaw (1991) emphasised that camera and video technologies can be effectively used when monitoring customers' in-store behaviour. They also mentioned that in standard customer behaviour monitoring research, researching the store, choosing the suitable camera locations and placing cameras in the necessary places are very important for the research design (Phillips & Bradshaw, 1991).

Regarding contact centres, telecommunication companies pay real attention to the elements mentioned by Phillips & Bradshaw (1991). The potential reasons for this are to prevent the theft of technological products in the store, which can be characterised as light in weight and heavy in cost, and to detect inappropriate customer behaviours. On the other hand, only the presence of cameras in these stores makes it impossible to determine how long the customers wait in the store in which position or how it affects their purchasing behaviour. In addition, Granbois (1968) argued that the findings obtained by directly observing the areas where customers spend time in the store and their reactions to the products they buy should be considered in the decisions to be taken by retail businesses. However, no study in the literature aims to investigate customer behaviour in contact centres. For this purpose, this study seeks to fill the relevant gap in the literature. The results obtained in the study were also discussed with the retailer's management. It is thought that the results obtained in the research will contribute to both contact centres and future research, especially the local authorities of the company where the store data is provided.

## Theoretical Framework

Since the customer contact centres of mobile phones are one of the retail store types, this section of the study will first address the consumer behaviour in this type of store and the factors affecting this behaviour. Then, the framework for monitoring customers in these stores will be drawn in the second sub-section.

## Consumer Behaviour in Retail Stores

Groeppel-Klein (2005) states that consumers make purchasing decisions in line with their needs and multiple sensory desires for their products. According to Donovan et al. (1994), consumers need to establish a psychological interaction with the physical environment that affects their sensory state during shopping. Therefore, it can be thought that physical store designs that fit the psychological-based desires of customers will affect the purchasing behaviour of customers. This view is in line with the study conducted by Ogruk et al. (2018), who stated that in-store customer well-being in retail stores is affected by store ambience.

Studies in environmental psychology and retailing shed light on the importance of environmental design for creating pleasurable consumer experiences, communicating a desired store or service image, and encouraging certain behaviours (Donovan & Rossiter, 1982; Hemalatha et al., 2022; Nguyen & Nham, 2022; Sachdeva & Goel, 2015). However, it is known that the features preferred in the interior design and operation of a retail store affect customers' purchasing preferences and behaviours (van Rompay et al., 2012). In addition, these elements contribute directly to the store's image and the brand that hosts the store (Suryawardani et al., 2018). In addition, Duong et al. (2022) emphasised that the effect of a store on customers cannot be only psychologically based and that this effect should be pronounced psychophysiologically due to the effect of physical conditions.

Many psychophysiological factors affect in-store consumer behaviour in retail businesses (Duong et al., 2022). When the studies in this direction are examined, the atmosphere in the store (Hussain & Ali, 2015; Smith & Burns, 1996), store scent (Errajaa et al., 2021), visual stimuli (Clement et al., 2015), store personality (d'Astous & Lévesque, 2003), colours used in the store (Bellizzi & Hite, 1992), discount announcements announced in the store (Yıldırım & Aydın, 2012) music played (Sbai et al., 2022), lighting (Ogruk et al., 2018), architectural features (Pecoraro & Uusitalo, 2014), exterior appearance (Ogruk et al., 2018) and store layout (Singh et al., 2014) affect the purchasing preferences of retail customers.

Consumer behaviour in retail businesses varies depending on age and many factors. It is observed that as the age of consumers in the store increases, their patience at the waiting point decreases (Meneely et al., 2009). According to Vinish et al. (2022a), this trend is due to decreased physical strength with age. In addition, Khan et al. (2020) state that age affects customers' experiences and brand loyalty, thus affecting their store preferences. Retail preferences also differ according to gender (Fischer & Arnold, 1994). Durante et al. (2011) argue that hormonal cycles, especially in women, affect perceptions of products and, thus, consumer behaviour. Kruger & Byker (2009) attributed this difference to primitive masculine behaviour during hunting and gathering. Kolyesnikova et al. (2009) underlined that this situation is also valid for services and that service perception differs according to gender.

## Customer Monitoring in Retail Stores

Retail stores are generally types of businesses with high customer density and crowdedness. The crowded structure of these businesses is sometimes seen as an attractive factor for consumers due to the intense interest of customers.

However, the fact that today's consumers' digital addiction is accompanied by their concerns about wasting time increases their potential to prefer online stores and marketplaces (Isa et al., 2019). This situation, which creates a competitive challenge for physical retailers, indicates that methods that can adjust the density of customers in the store should be followed. Therefore, according to Sen et al. (2022), physical retailers need to provide sufficient convenience to their customers to survive and create a solid alternative to online platforms.

In-store customer monitoring has become an approach increasingly applied by marketers across a wide range of dimensions (Fullerton et al., 2017). On the other hand, the ubiquity of various observation tools in a brick-and-mortar retail environment has led to the derivation of a term in the literature that aims to capture this phenomenon (Brooksbank et al., 2022). "*Retailance*", a concept introduced by Elnahla & Neilson (2021), refers to the continuous monitoring of customers in retail. In this way, information can be obtained about the behaviour patterns of consumers based on their location in the store (Singh et al., 2022). However, some methods are needed to determine the location and behaviour of the customer in the store.

Among these methods, the computational ones are based on determining the customer's location in the store based on the location information received from customers' mobile phones (Bourimi et al., 2011). Thanks to these methods using advanced information systems, an optimal layout plan can be realised based on the location of shoppers in the store (Hwangbo et al., 2017). However, these systems assume continuous location can be obtained from the customer's mobile phone. Sometimes, additional software (RFID readers or digital Bluetooth receivers) can be installed by customers for systems that will perform detailed measurements (Cheema, 2018). Using these systems assumes that the customer is aware of the practices and that there is a possible bias in their behaviour.

Non-computational monitoring methods are based on manually monitoring customers' behaviour and movements within the store. One of these methods is the monitoring of customers by experts through cameras. This method was first proposed by Phillipps and Bradshaw (1991) as a practical approach to marketing research and retailing. In this method, cameras placed at various angles are used to analyse customer behaviour and to understand how long customers spend at which points in the store.

It is crucial to analyse the time spent by consumers in retail stores. Vinish et al. (2022a) argued that customers who cannot obtain the desired product and service on time and are kept waiting in the store perceive emotional discomfort and evaluate their experience of the store negatively. Singh et al. (2014) argued that the store layout and the atmosphere provided by this layout affect the consumer's ability to respond to shopping expectations and receive the expected service on time. At this point, closing sales is also a critical situation for retailing. Customer visits that do not turn into sales are widely assumed as a problem to be solved for retailers. Ziglar (1985, p. 89) summarises the solution to this situation as the adoption of offers to customers both verbally and visually, which indicates that the design of retail stores is vital in closing sales.

In this study, the movements of consumers in a customer contact centre are examined. In addition to how the customer moves, at which stages or how long it takes them to make purchasing decisions is another issue investigated in this study.

## Method

In-store behaviours of the customers of a company that continues its activities in Sivas city centre and sells communication/technology products were examined to carry out this study. The data collection process covers the period between 1-31 March 2022. During the data collection process, any information that would enable the customers to understand who they are was not included in the data set. Therefore, the customers did not need to fill in a consent form. In addition, the data used in the study do not have the potential to create any incompatibility regarding the Personal Data Protection Law (In Turkish: KVKK).

In this study, some data were collected to understand the customers who come to the stores intending to shop for technology. To avoid bias, no specific time of the day or week was taken into account. The collected data includes gender and age demographics to understand customers' general structure. At the same time, data on the store and customer interaction, including the time of arrival to the store, the area where customers are oriented in the store, the completion time of the service, the realisation of the sale, the time spent by the customer in the store and the total amount spent variables were prepared. Measurements made according to customers' in-store movements were quantified in minutes. All in-store locations and transactions specified in the study were calculated in terms of minutes spent by customers. Customers' active in-store times were taken, and the accuracy of the times obtained in the second control phase was verified by CRM experts from camera recordings. Finally, by collecting data on the number of people providing service related to the store and the task of the person providing the service, it was tried to have information about the store's approach to the customer. With these variables, both the basic structure of the customer and the active service approach of the store and the elements in the purchasing process were tried to be revealed.

Chi-Square analysis was used to compare categorical data in the data set. The appropriate test was decided by the normality test (Shapiro-Wilk Test) for the calculations performed on continuous data. Since continuous variables were unsuitable for normal distribution ($p<0.05$), the analysis continued with nonparametric test techniques. Therefore, the Kruskal-Wallis H test analysed the difference between more than two categorised variables, and the difference between two categorised variables was analysed by the Mann-Whitney U test. The analyses were interpreted at a 95% confidence level and analysed with the open-source JAMOVI package programme.

## Analysis

522 customer data were collected within the date range specified in the material and method title to conduct this study. Due to the mistakes made during the creation of the data set and the incompleteness of the customers, 57 observations were removed from the data set. Thus, the analyses continued with the data of 465 customers.

Firstly, the frequency table and descriptive statistics of the variables belonging to the data set were calculated. When the existing variables in the data set were analysed, descriptive statistics (mean ± SD.) of the variables related to duration and amount and frequency (n, %) calculations for other variables were made and presented in Table 1.

When Table 1 is analysed, it is understood that the customers coming to the store are mostly men (71.6%). It was also calculated that customers aged 30-50 accounted for 72.1 percent of all customers, while customers aged 20-30 accounted for 12.5 percent, and customers over 50 accounted for 15.5 percent. In addition, as an indicator of the store's approach to the customer, it was observed that the number of people providing service was limited to one staff member (93.8%). The store manager served only one customer (0.2%), which was neglected in the analysis. When the duty of the person providing service, another store indicator, is analysed, it is understood that those working as a cashier (24.1%) are less than those working as a communication counsellor (75.7%).

In addition to the above variables, Table 1 includes variables representing customer and store elements together; it is determined that the majority of customers (43.4%) visit the store between 13:00-16:00, 31.6% between 17:00-21:00, and the remaining 24.9% between 09:00-12:00. Customers' service demands are categorised in three main areas. While invoice and mobile line transactions (69%) were mostly requested, it was also observed that accessory purchase (14.4%) and device purchase (16.6%) services were also provided. Customers can turn to five different areas when they enter the store. In our study, these areas were named as accessory aisle (12.7%); table with brochures (1.3%); seats in the waiting area (48%); cash register area where payment is made (24%) and potential sales area (14%). As can be analysed from the table, the density of the areas customers first turn to after entering the store varies.

When the continuous variables we used to evaluate these elements were analysed, the average of the "time spent" time, which refers to the total time spent by customers in the store, was calculated as 18.6 ± 12.8 min. The average "service completion time" in which the sale is actively made was calculated as 15,2±11,1 minutes. As a result of the time spent in the store, it was determined that the number of customers sold was 397 (85.1%). In the case of the realisation of the sales transaction, it was determined that the average sales amount was 713 ± 2168 TL.

Table 1. Basic Statistics of Variables

*Çizelge 1: Değişkenlerin Temel İstatistikleri*

| Variable | Category | Statistics |
|---|---|---|
| **Gender** | Male | 333 (%71,6) |
| | Female | 132 (%28,4) |
| **Age** | 20-30 | 58 (%12,5) |
| | 31-40 | 190 (%40,9) |
| | 41-50 | 145 (%31,2) |
| | 50+ | 72 (%15,5) |
| **Customer arrival time** | 09-12 | 116 (%24,9) |
| | 13-16 | 202 (%43,4) |
| | 17-21 | 147 (%31,6) |
| **Service demanded** | Accessory purchasing | 67 (%14,4) |
| | Device purchasing | 77 (%16,6) |
| | Invoice/line transactions | 321 (%69) |
| **Targeted area** | Accessory | 59 (%12,7) |
| | Active sale | 65 (%14) |
| | Smart device | 112 (%24,1) |
| | Seat | 223 (%48) |
| | Desk | 6 (%1,3) |
| **Number of service-providing people** | 1 | 436 (%93,8) |
| | 2 | 29 (%6,2) |
| **Position of the service providing people** | Communication consultant | 352 (%75,7) |
| | Cashier in charge | 112 (%24,1) |
| | Store manager | 1 (%0,2) |
| **Shopping result** | Positive | 397 (%85,4) |
| | Negative | 68 (%14,6) |
| **Store entry time (hours)** | | 14,92±2,86 (9-21) |
| **Service completion time (minutes)** | | 15,15±11,09 (1-103) |
| **Total time spent in store (minutes)** | | 18,59±12,8 (2-103) |
| **Free time spent in store (minutes)** | | 3,44±5,23 (0-50) |
| **Total shopping amount (TL)** | | 713,43±2168 (0-33000) |

It was examined whether the elements of customers' shopping interaction in the store differed according to gender. The results are given in Table 2.

In all behavioural variables in the table, it is calculated that there is a statistically significant difference according to gender ($p<0.05$). When the source of the difference was analysed, it was observed that female customers (76.5%) demanded invoice-line service more than male customers (76.1%). In comparison, males (19.5%) demanded service for device purchase more than females (9.1%). When the distribution according to the areas where the customers are oriented is analysed, it is calculated that the reason for the difference is that women are more oriented towards cash register (female=31.8%; male=21%) and desk (female=3.8%; male=0.3%) areas than men. It was determined that men (17.1%) were more likely to be orientated towards potential sales than women (6.1%). When the duties of the people from whom the customers received service were analysed, it was seen that the calculated difference was that women received service more from the cashier (31.8%). Men received more service from the communication consultant (78.7%). Finally, when the store's sales probability was calculated, it was calculated as 90.6% for women and 83.2% for men.

It was examined whether the variables of in-store behaviours and service indicators of the store changed according to the customers' age groups; the results are shown in Table 3.

Table 2. Crosstable of Shopping Interaction Variables and Gender
*Çizelge 2: Alışveriş Etkileşimi Değişkenleri ve Cinsiyetin Çapraz Tablosu*

| Variable | Category | Male | Female | p |
|---|---|---|---|---|
| **Service demanded** | Accessory purchasing | 48 (14.4 %) | 19 (14.4 %) | **0,021** |
| | Device purchasing | 65 (19.5 %) | 12 (9.1 %) | |
| | Invoice/line transactions | 220 (66.1 %) | 101 (76.5 %) | |
| **Targeted area** | Accessory | 43 (12.9 %) | 16 (12.1 %) | **<0.001** |
| | Active sale | 57 (17.1 %) | 8 (6.1 %) | |
| | Smart device | 70 (21.0 %) | 42 (31.8 %) | |
| | Seat | 162 (48.6 %) | 61 (46.2 %) | |
| | Desk | 1 (0.3 %) | 5 (3.8 %) | |
| **Position of the service providing people** | Cashier in charge | 70 (21.0 %) | 42 (31.8 %) | **0,042** |
| | Store manager | 1 (0.3 %) | 0 (0.0 %) | |
| | Communication consultant | 262 (78.7 %) | 90 (68.2 %) | |
| **Shopping result** | Positive | 277 (83.2 %) | 120 (90.9 %) | **0,034** |
| | Negative | 56 (16.8 %) | 12 (9.1 %) | |

Table 3. Crosstable of Shopping Interaction Variables and Age Groups
*Çizelge 3: Alışveriş Etkileşimi Değişkenleri ve Yaş Gruplarının Çapraz Tablosu*

| Variable | Category | 20-30 | 31-40 | 41-50 | 50+ | p |
|---|---|---|---|---|---|---|
| Service demanded | Accessory purchasing | 10 (17.2 %) | 31 (16.3 %) | 17 (11.7 %) | 9 (12.5 %) | 0,427 |
| | Device purchasing | 9 (15.5 %) | 29 (15.3 %) | 31 (21.4 %) | 8 (11.1 %) | |
| | Invoice/line transactions | 39 (67.2 %) | 130 (68.4 %) | 97 (66.9 %) | 55 (76.4 %) | |
| **Targeted area** | Accessory | 9 (15.5 %) | 27 (14.2 %) | 14 (9.7 %) | 9 (12.5 %) | 0,250 |
| | Active sale | 8 (13.8 %) | 26 (13.7 %) | 27 (18.6 %) | 4 (5.6 %) | |
| | Store cash | 12 (20.7 %) | 39 (20.5 %) | 41 (28.3 %) | 20 (27.8 %) | |
| | Seat | 29 (50.0 %) | 94 (49.5 %) | 61 (42.1 %) | 39 (54.2 %) | |
| | Desk | 0 (0.0 %) | 4 (2.1 %) | 2 (1.4 %) | 0 (0.0 %) | |
| **Number of service providing people** | 1 | 52 (89.7 %) | 173 (91.1 %) | 141 (97.2 %) | 70 (97.2 %) | **0,036** |
| | 2 | 6 (10.3 %) | 17 (8.9 %) | 4 (2.8 %) | 2 (2.8 %) | |
| **Position of the service providing people** | Cashier in charge | 12 (20.7 %) | 39 (20.5 %) | 41 (28.3 %) | 20 (27.8 %) | 0,103 |
| | Store manager | 1 (1.7 %) | 0 (0.0 %) | 0 (0.0 %) | 0 (0.0 %) | |
| | Communication consultant | 45 (77.6 %) | 151 (79.5 %) | 104 (71.7 %) | 52 (72.2 %) | |
| **Shopping result** | Positive | 54 (93.1 %) | 163 (85.8 %) | 121 (83.4 %) | 59 (81.9 %) | 0,271 |
| | Negative | 4 (6.9 %) | 27 (14.2 %) | 24 (16.6 %) | 13 (18.1 %) | |

When the analysis results were examined, it was calculated that the age groups differed only in terms of the number of service providers (p<0.05). This difference is because the rate of service provided by more than one staff to customers aged 20-30 (10.3%) and 31-40 (8.9%) is higher than that of 41-50 (2.8%) and over 50 (2.8%). Although no statistically significant difference was calculated, it is noteworthy that the demand for device purchase services is higher among customers aged 41-50 (21.4%) compared to other age groups, while customers over 50 (5.6%) are less orientated towards potential sales areas. In addition, although it does not create a statistically significant difference, it is observed that the probability of sales decreases as the age group increases.

Another situation investigated whether the in-store customer behaviour and the change in the service parameters provided by the store make a difference in the realisation and non-realisation of the sale according to whether it turns into a sale or not. The results are given in Table 4.

In the table above, a statistically significant difference was calculated in the realisation of sales according to the area where the customers are oriented and the duties of the person providing the service (p<0.05). It was calculated that 100% of the sales were made in the activities carried out in the cash register (n=112) and table (n=6) areas where the customers were orientated. In addition, 32.3% of the customers in the potential sales area, 17.9% in the seating area, and 11.9% in the accessory aisle did not sell. Another variable in which there is a difference is the possibility of no sale if the service provider is a communication counsellor. It was determined that 19.3% of the customers could not complete the sale, and the personnel serving these customers were communication counsellors.

In the last stage of the analysis, it was examined whether the changes in the parameters of store and customer interaction, in-store customer behaviour and service approach resulted in differences in the averages of the time spent in the store and sales amounts. The results of this analysis are given in Table 5.

Table 4. Crosstable of Shopping Interaction Variables and Sales Outcome
*Çizelge 4: Alışveriş Etkileşimi Değişkenleri ve Satış Çıktılarının Çapraz Tablosu*

| Variable | Category | Positive | Negative | p |
|---|---|---|---|---|
| **Service demanded** | Accessory purchasing | 59 (88.1 %) | 8 (11.9 %) | 0,552 |
| | Device purchasing | 63 (81.8 %) | 14 (18.2 %) | |
| | Invoice/line transactions | 275 (85.7 %) | 46 (14.3 %) | |
| **Targeted area** | Accessory | 52 (88.1 %) | 7 (11.9 %) | **<0.001** |
| | Active sale | 44 (67.7 %) | 21 (32.3 %) | |
| | Store cash | 112 (100.0 %) | 0 (0.0 %) | |
| | Seat | 183 (82.1 %) | 40 (17.9 %) | |
| | Desk | 6 (100.0 %) | 0 (0.0 %) | |
| **Number of service providing people** | 1 | 370 (84.9 %) | 66 (15.1 %) | 0,224 |
| | 2 | 27 (93.1 %) | 2 (6.9 %) | |
| **Position of the service providing people** | Cashier in charge | 112 (100.0 %) | 0 (0.0 %) | **<0.001** |
| | Store manager | 1 (100.0 %) | 0 (0.0 %) | |
| | Communication consultant | 284 (80.7 %) | 68 (19.3 %) | |

When the demographic characteristics of the customers were analysed, no statistically significant difference was calculated between the time spent in the store or the total sales amount (p>0.05). However, there are statistically significant differences in the variables representing the store's approach to customers and the interaction of customers with the store (p<0.05). When the number of service providers increases, the service completion time (25.3±19.2 min.) and the time spent (30.0±19.2 min.) increase statistically significantly. A similar situation was also observed in the total sales amount. While the average sales amount was 646±2148TL in the case of a single staff member, the average sales amount of 1723±2254TL was reached in the activities that two staff members were interested in and resulted in sales. It was observed that the average free time during which the customers did not receive service did not differ according to the number of people providing service.

When the difference in durations and total amounts according to the service type variable is analysed, it is calculated that the device purchase activity has a statistically higher average value than the other activities (accessory purchase, invoice-line transactions) for all variables. When the hours of arrival of the customers to the store were analysed, no statistically significant difference could be calculated between the time spent in the store and the average sales amounts. A statistically significant difference was calculated between all the time spent in the store and average sales amounts according to the areas that customers were orientated in the store (p<0.05). It was calculated that these differences were since the time spent in the potential sales area and the average sales amount were higher than in the other areas in the store. In contrast, the time spent in the cash register area and the average sales amount obtained were lower. In cases where the store customer interaction turned into sales, the total time spent was 19.6±13.3 minutes, while the average time spent in non-sales situations was 12.8±6.82 minutes. Similarly, the average active service time was calculated as 15.9±11.5 minutes in cases where sales were made and 10.6±6.36 min. in cases where no sales were made. A statistically significant difference was calculated in both periods (p<0.05).

Table 5. Difference Analysis Results of Shopping Interaction Variables and In-Store Times and Sales Amount
*Çizelge 5: Alışveriş Etkileşimi Değişkenleri ile Mağaza İçi Süreler ve Satış Miktarının Fark Analizi Sonuçları*

| Variable | Category | Service Completion Time | Time Spent In Store | Free Time Spent In Store | Total Amount Spent |
|---|---|---|---|---|---|
| **Gender** | Male | 15.88±12.08 | 19.33±13.95 | 3.45±5.74 | 812.89±2434.68 |
| | Female | 13.33±7.84 | 16.73±9.06 | 3.4±3.64 | 462.54±1239.64 |
| **p** | | 0,194 | 0,308 | 0,160 | 0,986 |
| **Age** | 20-30 | 13.7±14 | 16.9±14.2 | 3.24±3.03 | 627±2063 |
| | 31-40 | 16.3±11.1 | 20.2±13.8 | 3.94±6.26 | 786±2729 |
| | 41-50 | 14.7±10.2 | 17.8±11.5 | 3.1±5.28 | 791±1713 |
| | 50+ | 14.2±10.1 | 17.1±11.1 | 2.94±3.03 | 434±1189 |
| **p** | | 0,161 | 0,202 | 0,396 | 0,057 |
| **Number of service providing people** | 1 | 14.5±10 | 17.8±11.9 | 3.35±5.17 | 646±2148 |
| | 2 | 25.3±19.2 | 30±19.6 | 4.76±5.89 | 1723±2254 |
| **p** | | **<0.001** | **<0.001** | 0,248 | **0,021** |
| **Service** | Accessory purchasing | 12.9±6.44 | 16.1±7.59 | 3.22±3.31 | 98.5±88.6 |
| | Device purchasing | 28.1±16 | 32.7±18.2 | 4.56±7.15 | 3819±4117 |
| | Invoice/line transactions | 12.5±7.77 | 15.7±9.47 | 3.21±4.98 | 96.8±76.1 |
| **p** | | **<0.001** | **<0.001** | 0,419 | **<0.001** |
| **Targeted area** | Accessory | 12.8±6.63 | 15.8±7.71 | 2.98±3.23 | 95.3±87.3 |
| | Active sale | 24.5±18.2 | 27.8±19.4 | 3.34±4.36 | 3306±4604 |
| | Store cash | 7.24±5 | 10.1±8.77 | 2.88±6.97 | 89.5±54.5 |
| | Seat | 17.1±8.65 | 20.9±10.5 | 3.85±4.91 | 450±1169 |
| | Desk | 12.8±3.31 | 16.8±3.82 | 4±2.37 | 138±68.8 |
| p | | **<0.001** | **<0.001** | **0,001** | **<0.001** |
| **Transaction hour** | 09-12 | 15.7±10 | 18.9±11.1 | 3.28±3.11 | 1214±3587 |
| | 13-16 | 14.7±12.1 | 18.1±14.1 | 3.48±6.07 | 436±1244 |
| | 17-21 | 15.4±10.5 | 18.9±12.3 | 3.5±5.32 | 699±1539 |
| **p** | | 0,378 | 0,301 | 0,328 | 0,584 |
| **Shopping result** | Positive | 15.9±11.5 | 19.6±13.3 | 3.65±5.57 | - |
| | Negative | 10.6±6.36 | 12.8±6.82 | 2.18±2.03 | - |
| **p** | | **<0.001** | **<0.001** | 0,092 | - |

## Discussion and Conclusion

The particular focus of this study is on the finalisation of the sale. This focus is tried to be explained by customer characteristics, store structure, and customer behaviour. The variables in the data set are the shopping transaction with a positive outcome and the variables around this issue.

When economic, family, and business factors are considered together, it is known that the 30-50 age group is more active. Therefore, it would not be wrong to have a significant portion of the customers in the data set in this age range to examine the customers' behaviour. It is thought that in-store customer behaviours, which are at the core of this study, are accurately reflected. Grewal et al. (2018) state in their research that purchasing motivation decreases with advancing age. From a different perspective, Meneely et al. (2009) stated that the increase in age is an increase in utilitarian purchasing behaviour. In this study, even if the purchase rate decreases with increasing age, it is understood that this is not statistically significant. This situation aligns with Vinish et al.'s (2022a) judgement that shopping motivation decreases with age.

As Kolyesnikova et al. (2009) mentioned, the difference in motivation according to gender-differentiated service preferences. When the findings are evaluated according to gender, women mostly demand invoice and line transactions. Therefore, it is understood that female customers exhibit result-oriented behaviour, in the words of van Rompay et al. (2012), they are goal-oriented consumers. On the other hand, the intensity of device purchase transactions involving decision-making steps in men is an entire process to the customer's preference. Thus, the fact that the purchase preference initiated by men is not completed more than women can be explained by this situation.

It was found that the time spent by male customers in the store was, on average more than female customers at each stage (total time, service time, and idle time). However, it is natural that this gender difference is not statistically significant due to the large standard deviations of the parameters. Similarly, while the time spent in the store is less for younger customers, the highest in-store time is observed for customers aged 31-40. At the same time, it is calculated that customers' spending levels in the 31-40 and 41-50 age groups are higher than those in other age groups.

When the customers' visiting hours are analysed, the intensity is between 13:00-16:00 hours also supports the consistency of store visits by gender. The majority of customers are male. It has been determined that female customers mostly visit the store during this time interval. Therefore, the density of the store in this time period is understood.Similarly, fewer customers visit the store in the morning hours (09:00-12:00), which is the beginning of working hours, which is a possible indication that customers with high purchasing potential may have been included in our data set. It can be concluded that the customers who visit the store in the morning are target-oriented.

It would not be wrong to assume that most potential customers who visit the store at noon are not working. Based on this, it is thought that in-store crowding increases. Gong et al. (2022) stated that increased perceived chaos increases customer stress. Similarly, as Vinish et al. (2022a) said, even if there is no direct difference or association between arrival time and shopping, it is noteworthy that it is the lowest revenue-generating period. At the same time, relatively lower service time and time spent in-store between 13-16 hours were found. On the contrary, the idle time in the store is also relatively high. In light of all this information, it is understood that the judgement that waiting and rudeness reduce shopping motivation (Vinish et al., 2022b) is also valid in contact centres.

In the service requested for device purchase, an activity of approximately 30 minutes is mentioned, regardless of the completion of the sale. The average sales amount arising from purchasing devices, about 2.3 times the average duration of other services, is approximately 38.8 times higher.

## Limitations and Suggestions

The probability of sales will decrease as the price increases. It is thought that the high rate of no sales in the potential sales area is since devices and high-value electronic products are sold in this region. On the contrary, in the opposite case, it can be expected that the customers who go directly to the cash desk will have service purchases that result in sales since they mostly perform invoice-line transactions.

For the store used in the study, it has been observed that the customers are concentrated in the cash register, where fast and low-return service is provided, and in the seat areas that do not have any direct contribution. The highest rate of unsuccessful sales was recorded in the customers who were orientated to the seating area compared to other areas. From this point of view, it would be fitting to direct the customers who are directed to the seating area to the accessory, table and live device areas in a prioritised way.

Another noteworthy issue is the variable of the number of personnel dealing with the customer. The increase in personnel has not been calculated to make a difference in positively finalising the sale. The possibility that the customer's shopping motivation may decrease due to the perceived complexity mentioned in theory should not be ignored. For this reason, it is not recommended that more than one staff member deals with a customer in contact centres unless necessary.

The analysis revealed that the activities of all customers who apply to the cash register in cash transactions result in sales, which suggests that the whole activity will result in sales when the person who serves in a similar situation is the cashier. Based on this, it is clear that it will be advantageous for all personnel dealing with the customer to be able to complete the sale instead of directing the customer to the payment area.

From the point of view of the company owners, it is thought that it would be more appropriate to target customers aged 41-50 by analysing the time and sales amount variables together. Another result is the misconception that the sales amount can be increased by increasing the time spent in the store.

In the analyses, it has been determined that the time spent by the customers is the sum of the difference between the time of entering the store and the start of the service purchase and the time between the moment when the service purchase is independent of the end of the sale and the exit from the store. In these two stages, it should be considered that the staff’s approach to the customer and the customer's interaction with the store is independent of the in-store areas and sales. Thus, it is understood that the active sales time should be increased to increase the total amount of the transaction made in the activities to be finalised with sales for the companies.

Although the purchase of equipment is more revenue-generating than other activities, it is thought that this situation should not be analysed alone. Because for customers, the occupancy of the store, busyness, customer satisfaction, etc. factors are remarkable in increasing sales. Increasing these statistics is not only dependent on device sales. The purchase of accessories or the high number of low-cost services in communication services and the fact that customer satisfaction can be achieved more quickly may indirectly increase device sales. Therefore, it would be suitable for stores selling devices and services in the communication sector to focus not only on a single product but also on goods or services that will increase positive customer perception towards the store.

The change in the arrival time of the customers did not cause any difference in the time spent in the store. A similar situation was reflected in the average sales amounts. However, if a sale is made to a customer between the store's opening and noon, it would not be wrong to expect a higher average sale than other hours. Since the study did not examine this possibility, it is suggested that the reason for the relatively higher average sales amount encountered in the morning hours should be revealed in future studies.

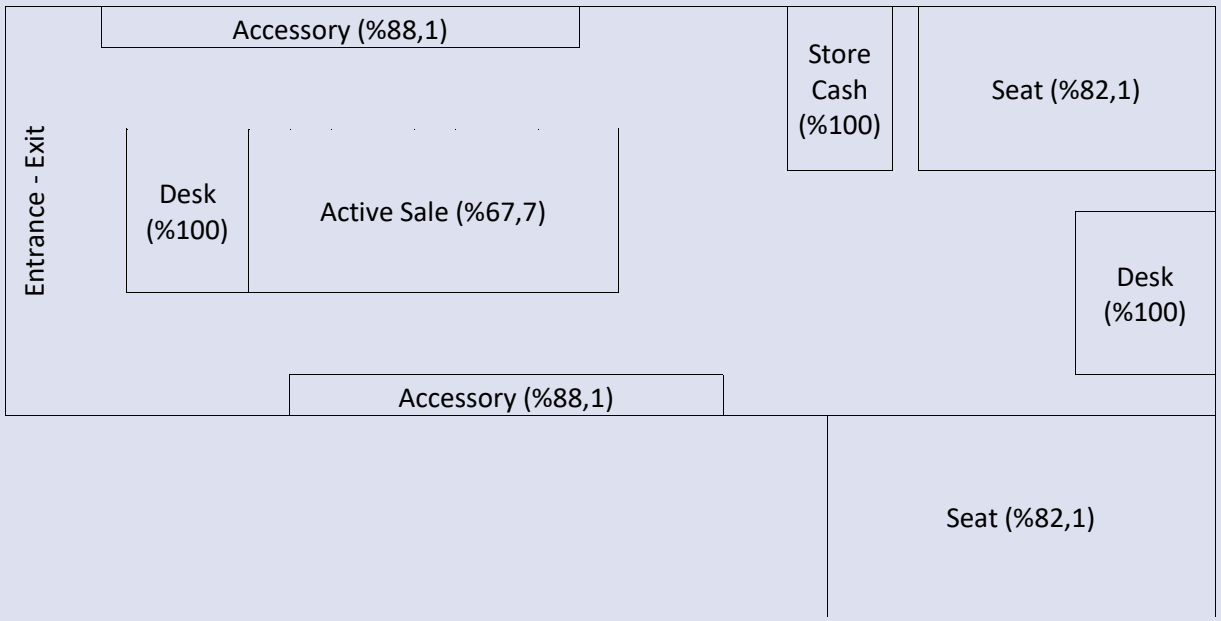


Figure 1. Store Layout and Sales Percentages
*Resim 1. Mağaza Yerleşimi ve Satış Yüzdeleri*

While the total time spent in the table and armchair areas and the duration of service purchase are close to the general average, it is observed that the free time spent is above the general average. The fact that these zones contain more comfort elements for customers (compared to other zones) may cause these durations to increase. At the same time, the fact that the average sales amount in the region where the seats are located has the second highest average among all areas may create an opportunity for firms to innovate in in-store differentiation. From this point of view, it can be predicted that customer-specific sales activities in some sectors can also be applied to selling electronic products for high sums of money. Especially in today's consumer economy, where choice is increasing, and customer loyalty is rapidly decreasing, it is thought that average sales amounts can increase by providing conditions where customers feel special. From this point of view, the prediction put forward with new studies can be tested.

The layout of the store where data were collected in the study can be seen in Figure 1. The figure also shows the sales percentages according to the areas analysed. It is noteworthy that the in-store layout is organised to keep consumers in the store for a more extended period. Therefore, the possibility of negative results in sales and/or customer experience due to possible crowding increases in older consumers. Policies can be developed in terms of in-store colouring or the behaviour of sellers towards consumers according to age groups to reduce this possibility. The high prices of the products can also explain the low sales rate in the live device area in this area. The fact that the live device and accessory areas are located close to each other in terms of complementing each other shows correct planning. At the same time, the layout of the in-store areas directs consumers to a U-shaped circulation. In this respect, it is concluded that the store layout is correct.

The average of customers' total time spent in the store and active sales time is higher in processes that result in sales may involve the stages of customers becoming sure, persuaded or changing their minds about the service or product. The fact that customer decisions are finalised more quickly in negative situations also applies to the no-sale situation in this study. The fact that customers spend a shorter time in the store without sales supports this view. This study does not aim to analyse customers' emotions, thoughts and decision processes. This study was obtained from a contact centre in a specific location and period. It would be correct to get the results again with a sample to be taken at different times of the year.

It is thought that the findings obtained in this study will be useful for managers of all physical retail stores, especially contact centers, who want to conduct research on in-store customer mobility. In addition, the findings of the study reveal the contribution of the sales areas in the physical store to sales separately. Therefore, the study provides information that will be useful for all retail businesses, especially for contact centers, especially for contact centers on how to organize the in-store layout to increase sales.

## Extended Abstract

### Introduction

Although the digital age has brought a series of challenges for physical retailers, some consumers prefer to shop directly in physical stores instead of online shopping. Although companies try to solve customer problems through call centres and voice response

systems, it isn't easy to solve them without face-to-face contact with customers willing to communicate physically. This situation is also valid for telecommunication providers. Customer contact centres are one of the types of businesses that support digital operations, where goods and services are offered in a bundle of products and services to resolve related problems. Through these centres, consumers can both access sub-services related to telecommunication services and purchase the technologies that will enable this access. The fact that the telecommunications sector has become a locomotive sector in many countries makes it necessary to understand customers' behaviour. At this point, it is also essential to investigate how they behave in contact centres, which are part of the holistic channel. The management of the relationship, which is the basic assumption of customer relationship management, is primarily based on the analysis of the data to be obtained from the customer. However, classical data collection methods cause a bias in customers' answers and make it challenging to fully understand actual consumer behaviour and the possible underlying reasons. While answering the questions directed to them, customers may give answers that do not reflect their natural behaviour.

On the other hand, it is thought that monitoring their behaviours in the shopping environment and not creating an experimental prerequisite will provide an environment for them to exhibit their natural behaviours more easily. In addition, it is also understood from the literature that monitoring customer behaviour in the store is an effective mechanism for understanding customer purchasing decisions. Furthermore, it is reasonable to assume that customer centres of communication providers aiming to support their customers will design stores to facilitate effective in-store customer monitoring. Potential reasons include preventing the theft of technological products in the store, which can be characterised as light in weight and heavy in cost, and detecting any inappropriate behaviour in the store at the point of communication with the customer. The adoptive attitude of contact centres towards cameras and their investments in the latest system cameras make the customer tracking performed in this study more functional.

## Method

The in-store behaviours of the customers of a company that continues its activities in Sivas city centre and sells communication/technology products were examined to carry out this study. The data collection process covers the period between 1-31 March 2022. During the data collection, any information enabling the customers to understand who they are was not included in the data set. Therefore, the customers did not need to obtain a consent form. In addition, the data used in the study do not reveal any incompatibility with the Personal Data Protection Law (KVKK).

The study collected some data to understand the customers coming to the stores to shop for technology. At the same time, data on the variables, including store and customer interaction, arrival time to the store, the area where customers are oriented in the store, the completion time of the service, the realisation of the sale, the time spent by the customer in the store and the total amount spent were prepared. Finally, data on the number of people providing service and the task of the person providing the service were collected to obtain information about the store's approach to the customer. With these variables, both the basic structure of the customer and the active service approach of the store and the elements in the purchasing process were tried to be revealed.

Chi-Square analysis was used to compare categorical data in the data set. The appropriate test was decided by normality test (Shapiro-Wilk Test) to be performed on continuous data. Since any continuous variables were unsuitable for normal distribution ($p<0.05$), the analysis was continued with nonparametric test techniques. Therefore, the difference between more than two categorised variables was analysed by the Kruskal-Wallis H test, and the difference between two categorised variables was analysed by the Mann-Whitney U test. The analyses were interpreted at a 95% confidence level and were performed with open-source JAMOVI software.

## Findings

When the findings were examined, it was found that most of the customers (43.4%) visited the store between 13:00-16:00, 31.6% between 17:00-21:00 and the remaining 24.9% between 09:00-12:00. Customers' service requests were categorised in three main areas. While invoice and line transactions (69%) were the most demanded services, it was also observed that accessory purchase (14.4%) and device purchase (16.6%) services were also provided. Customers can turn to five different areas when they enter the store. In our study, these areas were named as accessory aisle (12.7%); table with brochures (1.3%); seats in the waiting area (48%); cash register area where payment is made (24%) and potential sales area (14%). In addition, the density of the areas that customers first turn to after entering the store also varies.

In the study, the average duration of "time spent", which refers to the total time spent by customers in the store, was calculated as 18.6 ± 12.8 minutes. The average "service completion time" during which the sale is actively made was calculated as 15.2 ± 11.1 minutes. As a result of the time spent in the store, it was determined that the number of customers sold was 397 (85.1%). In realising the sales transaction, it was determined that the average sales amount was 713±2168 TL.

The study calculated that there was a statistically significant difference in all behaviour variables according to gender ($p<0.05$). When the source of the difference was analysed, it was seen that female customers (76.5%) demanded invoice-line service more than male customers (76.1%), and males (19.5%) demanded service for device purchase more than females (9.1%). When the distribution according to the areas where the customers were orientated,

it was calculated that the reason for the difference was that women were more orientated towards the cash desk (female=31.8%; male=21%) and counter (female=3.8%; male=0.3%) areas than men. Men (17.1%) were more orientated towards potential sales than women (6.1%). When the duties of the people from whom the customers receive service were analysed, it was seen that the calculated difference was that women received more service from the cashier (31.8%). Men received more service from the communication consultant (78.7%). Finally, when the probability of making a sale in the store was calculated, it was calculated as 90.6% for women and 83.2% for men.

In the study, a statistically significant difference was calculated in the realisation of sales according to the area where the customers were directed and the duties of the person providing service ($p<0.05$). It was calculated that 100% of the sales were made in the activities carried out in the cash register (n=112) and table (n=6) areas where the customers were directed. In addition, 32.3% of the customers in the potential sales area, 17.9% in the seating area and 11.9% in the accessory aisle did not make sales. Another variable where there is a difference is the probability of not making a sale if the service provider is a communication counsellor. It was determined that 19.3% of the customers could not complete the sale, and the personnel serving these customers were communication counsellors.

When findings according to the demographic characteristics of the customers were examined, no statistically significant difference was calculated between the time spent in the store and the total sales amount ($p>0.05$). However, there are statistically significant differences in the variables representing the store's approach to customers and the interaction of customers with the store ($p<0.05$). As the number of service providers increases, service completion time (25.3±19.2 min.) and time spent (30.0±19.2 min.) increase statistically significantly. A similar situation was also observed in the total sales amount. While the average sales amount was 646±2148TL in the case of a single staff member, the average sales amount was 1723±2254TL in the activities where two staff members were involved, resulting in sales. It was observed that the average free time customers did not receive service did not differ according to the number of people providing service.

## Discussion and Conclusion

When financial, familial, and business-related factors are considered together, it is known that the 30-50 age group is more active. Therefore, it would not be wrong to have a significant portion of the customers in the data set in this age range to examine the customers' behaviour. It is thought that in-store customer behaviours, which are at the core of this study, are accurately reflected. Grewal et al. (2018) state in their research that purchasing motivation decreases with advancing age. Meneely et al. (2009) approached it from a different perspective and stated that the increase in age leads to an increase in utilitarian purchasing behaviour. In this study, even if the purchase rate decreases with increasing age, it is understood that this is not statistically significant. This situation aligns with the judgement of Vinish et al. (2022a) that shopping motivation decreases with age.

As Kolyesnikova et al. (2009) mentioned, the difference in motivation according to gender-differentiated service preferences. When the findings obtained according to gender are evaluated, women mostly demand invoice and line transactions. Therefore, it is understood that female customers exhibit a result-oriented behaviour, in the words of van Rompay et al. (2012), they are goal-oriented consumers. On the other hand, the intensity of device purchase transactions involving decision-making steps in men is a process that is completely at the customer's preference. Thus, the fact that the purchase preference initiated by men is not completed more than women can be explained by this situation.

It would not be wrong to assume that most potential customers who visit the store at noon are not working. Based on this, it is thought that in-store crowding increases. Gong et al. (2022) stated that increased perceived complexity increases customer stress. Similarly, as Vinish et al. (2022a) stated, even if there is no direct difference or association between arrival time and shopping, it is noteworthy that it is the lowest revenue-generating period. At the same time, relatively lower service time and time spent in-store between 13-16 hours were found. On the contrary, the idle time in the store is also relatively high. In light of all this information, it is understood that the judgement that waiting and rudeness reduce shopping motivation (Vinish et al., 2022b) is also valid in contact centres.

## Katkı Oranları ve Çıkar Çatışması / Contrıbutıon Rates and Conflicts of Interest

| | | | |
|---|---|---|---|
| **Etik Beyan** | Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur. | **Ethical Statement** | It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited |
| **Yazar Katkıları** | Çalışmanın Tasarlanması: MFT (60%), SÇ (40%)<br>Veri Toplanması: MFT (30%), SÇ (70%)<br>Veri Analizi: MFT (40%), SÇ (60%)<br>Makalenin Yazımı: MFT (60%), SÇ (40%)<br>Makale Gönderimi ve Revizyonu: MFT (60%), SÇ (40%) | **Author Contributions** | Research Design: MFT (60%), SÇ (40%)<br>Data Collection: MFT (30%), SÇ (70%)<br>Data Analysis: MFT (40%), SÇ (60%)<br>Writing the Article: MFT (60%), SÇ (50%)<br>Article Submission and Revision: MFT (60%), SÇ (40%) |
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| **Çıkar Çatışması** | Çıkar çatışması beyan edilmemiştir. | **Conflicts of Interest** | The author(s) has no conflict of interest to declare. |
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