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Mediator and Regulatory Effects of Word of Mouth on The Effect of Electronic Servicescape on Brand Equity

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Research Article	ABSTRACT
	The main purpose of this study is to determine the mediator and regulatory role of electronic word-of-mouth communication (e-WOM) in the effect of service environments of online marketplace and business-to-consumer websites on brand equity. In addition, the study examines the effect of electronic servicescape (e-servicescape) on e-WOM and brand equity and the effect of e-WOM on brand equity. In the research, 402 usable questionnaires were obtained from consumers who purchased products from the Internet in the last six months. SPSS and AMOS programs were used to test the reliability, validity and research hypotheses of the e-servicescape, brand equity and e-WOM scales. As a result, it has been determined that e-servicescape affects brand equity and e-WOM, and e-WOM has a partial mediation role in the positive effect of e-servicescape on brand equity. It has been determined that e-WOM has a moderator role in the effect of e-servicescape (entertainment value, usability, relevance of information, customization, and interaction) on brand equity. The research's most significant contribution to the literature lies in highlighting the mediating and regulatory role of e-WOM in the impact of the websites' e-servicescape on brand equity. This study holds significance as it explores the servicescapes and brand equity of websites exclusively operating in online marketplaces and B2C e-commerce. *Keywords:* Branding, Brand equity, Electronic commerce, Electronic servicescape, Electronic word of mouth communication (e-WOM)

Elektronik Hizmet Ortamının Marka Değerine Etkisinde Ağızdan Ağıza İletişimin Aracı ve Düzenleyici Etkileri

	ÖZ
  	Bu çalışmanın temel amacı, çevrimiçi pazar yeri ve işletmeden tüketiciye web sitelerinin hizmet ortamlarının marka değerine etkisinde elektronik ağızdan ağıza iletişimin aracılık ve düzenleyici rolünü belirlemektir. Ayrıca çalışmada, elektronik hizmet ortamının elektronik ağızdan ağıza iletişim ve marka değerine etkisi ile elektronik ağızdan ağıza iletişimin marka değerine etkisi incelenmektedir. Araştırmada, son altı ayda internetten ürün satın alan tüketicilerden 402 adet kullanılabilir anket elde edilmiştir. Elektronik hizmet ortamı, marka değeri ve elektronik ağızdan ağıza iletişimin ölçeklerinin güvenilirliğini, geçerliliğini ve araştırma hipotezlerini test etmek için SPSS ve AMOS programları kullanılmıştır. Sonuç olarak, elektronik hizmet ortamının marka değerini ve elektronik ağızdan ağıza iletişimi etkilediği, elektronik hizmet ortamının marka değerine olan olumlu etkisinde elektronik ağızdan ağıza iletişimin kısmi aracılık rolü olduğu belirlenmiştir. Elektronik ağızdan ağıza iletişim, elektronik hizmet ortamının (eğlence değeri, kullanılabilirlik, bilginin uygunluğu, özelleştirme ve etkileşim) marka değerine olan etkisinde düzenleyici bir rolü olduğu belirlenmiştir. Araştırmanın literatüre en önemli katkısı, web sitelerinin elektronik hizmet ortamının marka değerine olan etkisinde elektronik ağızdan ağıza iletişimin aracılık eden ve düzenleyici rolünü vurgulamasıdır. Bu çalışma, yalnızca çevrimiçi pazar yerleri ve B2C e-ticarette faaliyet gösteren web sitelerinin hizmet ortamlarını ve marka değerini incelediği için önem taşımaktadır. *Anahtar Kelimeler:* Markalaşma, Marka değeri, Elektronik ticaret, Elektronik hizmet ortamı, Elektronik ağızdan ağıza iletişim

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Introduction

In a globalizing and modernizing world, businesses aim to reach more consumers by offering goods and services to consumers quickly and at low cost. Consumers also want to buy the best product and service by making comparisons in a shorter time. Therefore, the understanding of commerce is gradually turning from traditional to digitalization. Reports on electronic commerce in the world and in Turkey are prepared periodically. Worldef (2020) stated that electronic commerce has grown ten times in the last ten years in the world due to the positive contributions of electronic commerce to society and economy, electronic commerce being supported by states and the widespread use of the internet. Datareportal (2020) announced that the total value of global consumer (B2C-business-to-consumer) electronic commerce in 2019 was $3,43 trillion. Turkey Informatics Industry Association (TÜBİSAD) (2020) stated that the share of online retail in total retail increased from 7,9% to 12,3% in developed countries and from 3,3% to 6,7% in developing countries between 2015 and 2019. At the same time, this share has increased by more than 100% in five years in developing countries. When the share of online retail in total retail is analyzed, the rate is 18,3% in the UK and 15,2% in the USA from developed countries, Poland 7,8%, Brazil 7,6% and Russia 7,2% in developing countries. In Turkey, this ratio is quite far from developed countries and quite close to developing countries. In 2018 and 2019, the electronic commerce market in Turkey grew by 39% from 59,9 Billion TL to 83,1 Billion TL. In 2019, 54% of the sector size is retail and 46% is non-retail. In addition, the electronic commerce market size alone online retail was 30,8 Billion TL in 2019, and it was the category with the highest increase by 48%.

Internet, web, computer or mobile devices are needed for businesses to offer their goods and services to consumers in e-servicescapes and for consumers to make transactions in e-servicescapes. Electronic servicescapes, where goods and services meet with consumers, constitute an important part of commerce. The visual, design, usability, ease of payment, perceived reliability, etc. of the website. Characteristics can significantly affect the goods and services offered to the consumer. Consumers can generally turn to branded products to use time better when purchasing goods and services. The brand ensures that the consumer creates feelings such as trust, quality, etc., about the purchased goods and services. These emotions create the value of the brand, such as the perception of quality, awareness, loyalty, association, etc., in the mind of the consumer against the brand. These affect the consumer-based brand equity positively or negatively. Brand Finance, which uses financial and consumer-based brand valuation method, among the 500 most powerful global brands in 2021, electronic commerce retail brands such as Amazon and Tmall draw attention (Brand Finance, 2021). Consumers can recommend the goods and services they purchase from websites that become brands in the electronic commerce sector to another person/organization or submit their complaint. Consumers can share this situation in the customer comments section of the brand from which they purchased the goods and services, on social networking sites, blogs, etc. so that they reach other consumers. In this context, it influences the brand's sales and value either positively or negatively.

In the research, it was aimed to determine the mediator and moderator role of e-WOM in the effect of e-servicescape on brand value, as well as the effect of e-servicescape on e-WOM and brand value, and e-WOM on brand value. The research is important in terms of the effect of the e-servicescape on brand value. The research is valuable in terms of increasing the value of websites that only sell to online marketplaces and B2C which are engaged in electronic commerce, and to get better service to consumers. It is thought that websites will have an impact on the number of visitors and consumers through e-WOM when they make up for their deficiencies in the service environment and have brand value. In addition, it is expected that the number of B2C electronic companies will increase in the near future in the brand value lists published every year by brand valuation companies (Brand Finance, Interbrand etc.). This study is significant as it examines the service environments and brand value of websites exclusively dedicated to electronic commerce, focusing on online marketplaces and B2C sales. The mediator and regulatory role of e-WOM in the effect of the e-servicescape of websites on brand value is the most important contribution of the research to the literature.

Conceptual Framework

Electronic Servicescape

It is seen that most of the researchers focus their attention on the physical service environment to the electronic service environment, which is called the online service environment (Harris and Goode, 2010; Kühn et al., 2015), virtual service environment (Vilnai-Yavetz and Rafaeli, 2006; Mari and Poggesi, 2013), digital service environment (Ballantyne and Nilsson, 2017), e-servicescape (Hopkins et al., 2009; Lee and Park, 2013; Lai et al., 2014; Tran, 2014; Lai, 2015; Sreejesh and Ponnam, 2017; Huang et al., 2017; Bulut and Onaran, 2017; Teng et al., 2018; Tankovic and Benazic, 2018; Tran and Strutton, 2020). A service environment refers to the physical environment offered by the service provider. With the increase in internet usage, businesses that turn to the online environment integrate consumer needs and preferences into the designs of their websites (Wu et al., 2017: 694). The design of the website can be defined as the design of the online environments of businesses in a way that creates a positive effect-reaction in consumers (Tankovic & Benazic, 2018: 1127). In this context, the online environment can be considered as a service asset. The online environment makes it possible to reflect and interact with basic service features such as intangibility, inseparability and quick perishability between the internet, business and consumer. The electronic

servicescape is based on consumers' perceptions when they visit the online store and are the online environment factors that exist during service delivery (Wu et al., 2017: 694; Harris & Goode, 2010: 231). The electronic servicescape consists of three dimensions: aesthetic appeal, order and functionality, and financial security (Harris & Goode, 2010: 231).

Aesthetic Appeal

Aesthetic appeal refers to online environment conditions and the extent consumers interpret e-servicescape as alluring or attractive (Harris & Goode, 2010: 231). In addition, aesthetic appeal can represent the overall impressiveness of the website which affects the online consumption style of consumers. In particular, aesthetic appeal refers to the pleasure the consumer experiences during an online interaction with a website. Aesthetic appeal consists of three sub-dimensions: visual appeal, originality of design, and entertainment value (Kühn et al., 2015: 48; Harris & Goode, 2010: 231-232). Visual appeal refers to the ability to influence consumers' enjoyment and use of the website. The website can be strengthened with visual appeal, originality of design (creative logo, distinctive color, use of appropriate backgrounds, and prominent use of consistent typography on the website), and entertainment value (entertaining consumers by creating an exciting and entertaining environment) (Kühn et al., 2015: 48). The entertainment value and the originality of the design can also appeal to the consumer with sound and image (Tran, 2014: 15).

Layout and Functionality

Layout includes the structure, organization and arrangement of websites (Tran, 2014: 16). In other words, layout refers to the arrangement, organization, structure and adaptability of websites. Functionality is the extent to which such items facilitate consumers' service goals. In order for the website to successfully meet the needs of consumers, the layout and functionality must be usable, informative, customizable and interactive (Kühn et al., 2015: 49; Harris & Goode, 2010: 232). The usability of the website is an important factor in gaining effectiveness, efficiency, and satisfaction. Usability includes various elements such as easy navigation with minimum effort in a short time, visible and easily accessible interface functionality (Phan & Pilik, 2018: 384-385). In short, usability means ease of navigation and maneuverability on the website. Relevance of information is another important factor in consumers' website evaluation. The relevance and interrelated of the content of the website to consumers refers to the relevance of the information. Customization is the modification of a website to meet the needs and wants of each consumer. Interaction is a two-way information transfer between the user and the central point of communication and is usually a continuous process (Tran, 2014: 16-18).

Financial Security

Financial security refers to the extent to which consumers perceive the payment processes and general policies of a website as safe or secure (Harris & Goode, 2010: 233). When consumers perceive the information provided during online transactions to be secure, they view electronic commerce more positively (Ganguly et al., 2010: 302). At the same time, the presence of tight security systems and procedures on websites has a positive effect on the perceived security of websites (Harris & Goode, 2010: 242). In addition, consumers want convenience during the payment procedure. Ease of payment includes efficiency in the payment process, perceived ease of use for payment facilities, and not requiring too many details in the transaction (Tran, 2014: 18).

Brand Equity

A product's brand equity can positively affect firms' future profits and long-term cash flow, consumer's willingness to pay premium prices, merger and acquisition decisions, stock prices, sustainable competitive advantage, and marketing success (Yoo & Donthu, 2001: 1). Brand equity is the added value given to products and services in terms of company, trade or consumer (Farquhar, 1989: 24; Kotler & Keller, 2012: 243). In this context, brand equity is a series of brand assets and liabilities that are added to or subtracted from the value provided by the product or service to the company and/or the company's customers, depending on the name and symbol of a brand (Aaker, 1991: 26-27). In the literature, the assets and liabilities that underpin basic of brand equity vary, and the operationalization of consumer-based brand equity (CBBE) is generally divided into consumer perception (brand awareness, brand associations, perceived quality) and consumer behavior (brand loyalty, willingness to pay a high price) (Aaker, 1991: 27; Kim et al., 2003: 336). In addition, the most striking dimensions of brand equity discussed in the literature with a consumer focus are brand associations/image, brand awareness, perceived quality and brand loyalty (Londono et al., 2016: 71). At the same time, according to Aaker (1991), brand value consists of five categories: perceived quality, brand awareness, brand associations, brand loyalty and other proprietary brand assets (patents, distinctive features, channel relationships, etc.) (Aaker, 1991: 27). Various researches on brand equity result in all kinds of brand equity dimensions that can be associated with a brand. Nevertheless the common denominator in all models is the use of one or more dimensions of the Aaker model (Chieng & Lee, 2011: 35). The first four dimensions of brand equity (perceived quality, brand awareness, brand associations and brand loyalty) represent consumers' perceptions and reactions to the brand (Christodoulides & Chernatony, 2010: 47). Therefore, CBBE is a four-dimensional entity: perceived quality, brand awareness, brand associations and brand loyalty (Chieng & Lee, 2011: 35).

Perceived Quality

Perceived quality cannot be determined objectively, partly because it is a perception and includes judgments about what is important to customers. Perceived quality is defined according to an intended purpose and a series

of alternatives (Aaker, 1991: 92). In this direction, perceived quality is the customer's judgment regarding the overall excellence, reputation or superiority (according to the intended purposes) of a brand relative to alternative brands (Netemeyer et al., 2004: 210; Aaker, 1991: 92).

Brand Awareness and Association

Keller (1993) stated that brand awareness consists of brand recognition and recall performance. Brand recognition is when consumers confirm prior exposure to the brand when given a cue about the brand. In other words, when consumers go to the store, they may or may not recognize the brand as a brand they have been exposed to before. Brand recognition is when consumers differentiate the brand when there are other options (Keller, 1993: 3; Keller, 2013: 45; Foroudi et al., 2018: 464). Brand recall, on the other hand, is the ability of consumers to recall the brand from their memories, given the product category as a clue, the needs met by the category/a purchase/use situation (Keller, 2013: 45; Foroudi et al., 2018: 464). Brand association is an important component of brand perception and is a perceptual dimension of brand equity (Foroudi et al., 2018: 463). At the same time, brand association is defined as anything associated with a brand in memory (Aaker, 1991: 115).

Brand Loyalty

Brand loyalty, which has long been a central structure in marketing, expresses the measure of a customer's commitment to the brand (Aaker, 1991: 48). Brand loyalty is a deep commitment that leads to repeat purchases of the same brand or set of brands, which can cause situational effects, marketing efforts, and transitional behavior by enabling the consumer to repurchase or promote a preferred product or service consistently in the future (Thompson et al., 2014: 2437). In other words, brand loyalty is the extent to which consumers declare that they have purchased a certain brand or will buy it in the future (Godey et al., 2016: 5836).

Electronic Word of Mouth Communication

In recent years, as a result of technological developments changing the communication environment, e-WOM has emerged (Sun et al., 2021: 2). Less personal and very common, e-WOM has been an important area for consumer opinions (Bambauer-Sachse & Mangold, 2011: 38). The internet has allowed customers to share their ideas and experiences about goods and services with a large number of consumers through web-based consumer opinion platforms. Consumers can write about their product experiences and read product reviews of other consumers on different platforms such as retailers' websites, brand communities, independent websites, consumer blogs, and other platforms (Hennig-Thurau et al., 2004: 38; Lee & Koo, 2012: 1974). With the internet, consumers' options to collect unbiased product information from other consumers have expanded, giving consumers the opportunity to offer their own consumption advice. In this context, e-WOM refers to the positive or negative thoughts made by potential, real or former customers about a product or company offered to many individuals and organizations over the internet (Hennig-Thurau et al., 2004: 39). In other words, e-WOM is traditional WOM behavior developed and adapted with electronic media, which allows individuals to easily convey their messages in many ways (Tran & Strutton, 2020: 2). In short, e-WOM is all informal communications to consumers regarding the use/features/vendors of certain goods and services via internet-based technology (Sun et al., 2021: 2).

Literature Review

Since there is a lack of research in the literature that directly examines the effect of the e-servicescape on brand equity, the focus was on studies conducted on the e-servicescape. The electronic servicescape affects consumers' purchase intention (Hopkins et al., 2009; Lee & Park, 2013; Athapaththu et al., 2019; Yadav & Mahara, 2020; Shin & Jeong, 2021; Li et al., 2024) and there is a relationship between the e-servicescape and trust (Harris & Goode, 2010; Tran et al., 2012; Tran, 2014; Hee-Young, 2016; Adiwijaya et al., 2017; Wu et al., 2017; Garlet et al., 2018; Oebit & Sari, 2018; Rahman et al., 2018a; Ihsan & Kurniawati, 2019; Gharibi et al., 2020; Amer, 2021; Andriani et al., 2021; Kurniawati & Yaakop, 2021; Shin & Jeong, 2021; Stefani & Rizal, 2022; Alipoor et al., 2022; Safira & Nirawati, 2024). Website trust mediates the relationship between the e-servicescape and consumers' purchase intention (Athapaththu et al., 2019; Aprianti & Rachmawati, 2020). Trust has a positive and significant effect on e-WOM (Andriani et al., 2021), while trust has a positive effect on e-WOM intentions (Tran et al., 2012). Electronic servicescape dimensions have a positive and significant effect on WOM (Alipoor et al., 2022). At the same time, e-servicescape dimensions have an indirect impact on WOM (Roy et al., 2014), and where online financial security is the best indicator of website trust, followed by layout and functionality and aesthetic appeal (Kühn et al., 2015). Electronic word of mouth communication, aesthetic appeal, and financial security have a positive impact on trust (Ningtyas et al., 2023). Aesthetic appeal and financial security influence website attitude (Wu et al., 2017). In addition, aesthetic and privacy dimensions affect brand attitude in the e-servicescape (Shin & Jeong, 2021). Brand attitude and trust have a partial mediating role in the relations between e-servicescape and brand image (Lai, 2015). There are studies in the literature that affect the brand image of the e-servicescape (Lai, 2015; Lai et al., 2015; Hee-Young, 2016). At the same time, there are studies on the relationship between the e-servicescape and loyalty (Serejesh & Ponnam, 2017; Kechagia, 2018; Tankovic & Benazic, 2018; Gharibi et al., 2020; Ulum et al., 2022; Aprilia & Purwanto, 2023; Faiza & Rachman, 2023). Hakim and Deswindi (2015) found that the e-servicescape has a positive and strong effect on perceived quality. Faiza and Rachman (2023) determined that the e-servicescape has a significant impact on perceived value. Although layout and functionality have a positive effect on consumers' perceived values, aesthetic appeal and financial security do not have a positive effect on consumers' perceived values (Hermantoro & Albari, 2022). Aesthetic appeal and layout and functionality influence the perceived value (Amer, 2021).

Within the scope of studies on the dimensions of e-WOM and brand equity, the literature was examined. Studies showing that there is a relationship between e-WOM and brand image have been identified (Jalilvand & Samiei, 2012; Jatmika, 2014; Torlak et al., 2014; Elseidi & El-Baz, 2016; Lianto, 2015; Luong et al., 2017; Ivana & Uturestantix, 2018; Rahman et al., 2018b; Seo & Park, 2018; Dülek & Saydan, 2019; Mughoffar et al., 2019; Ningsih et al., 2019; Dewi & Giantari, 2020; Dewi & Rastini, 2020; Fadillah et al., 2020; Mustafaoğlu & Boztepe Taşkıran, 2020; Putra et al., 2020; Saputra & Wardana, 2020; Yohana et al., 2020; Budiman, 2021; Özdemir et al., 2021; Putri & Rahyuda, 2021; Samosir et al., 2021; Sayuti & Sukaatmadja, 2021; Urmak & Dayanç Kıyat, 2021). Electronic word of mouth influences perceived quality (Jalilian et al., 2013; Syahrivar & Ichlas, 2018; Taher & Almeshal, 2020), brand awareness (Jalilian et al., 2013; Shojaee & Azman, 2013; Seo & Park, 2018; Syahrivar & Ichlas, 2018; Dülek & Saydan, 2019; Bahi et al., 2020; Cuong, 2020; Foster & Johansyah, 2020; Pebrianti et al., 2020; Seo et al., 2020; Taher & Almeshal, 2020; Sihombing & Fachrodji, 2021), brand associations (Jalilian et al., 2013; Syahrivar & Ichlas, 2018) and brand loyalty (Jalilian et al., 2013; Syahrivar & Ichlas, 2018; Dülek & Saydan, 2019; Erşen et al., 2020; Taher & Almeshal, 2020; Budiman, 2021). At the same time, in studies (Vahdati & Nejad, 2016; Pasha & Sari, 2019; Sijoria et al., 2019; Amalia et al., 2021; Febrian & Fadly, 2021; Sun et al., 2021; Lin et al., 2023; Syah & Widodo, 2023) that evaluated brand equity as a whole, the effect of e-WOM on brand equity was determined. Corporate social responsibility communication directly and indirectly through e-WOM positively affects consumer loyalty (Wei et al., 2021). In another study (Khuong & Hanh, 2016), it is seen that trust indirectly affects brand value through e-WOM.

Model and Hypotheses of Research

The research was designed on two models and three main variables (e-servicescape, brand equity and e-WOM). In the literature, Harris and Goode (2010) evaluated the e-servicescape, which consists of three basic and nine sub-dimensions of aesthetic appeal (visual appeal, originality of design, entertainment value), layout and functionality (usability, relevance of information, customization/ personalization, interaction), financial security (perceived security, ease of payment), and examined the relationship between trust and purchase intention in e-servicescape. Tran et al. (2012) investigated the understanding of whether microblogging posts by online electronic sellers affect consumers' perceptions of the six-dimensional e-servicescape (visual appeal, entertainment value, interaction, usability, customization/personalization, financial security). In the same study, the effect of consumers' electronic service environment perceptions on e-WOM intentions was examined. Tran (2014) evaluated the relationships between the sub-dimensions of the e-servicescape (visual appeal, originality of design, entertainment value, usability, relevance of information, customization/ personalization, interaction, customer reviews, perceived security, ease of payment) and trust, the perception of trust e-WOM intentions and customer loyalty. Aaker (1991), Aaker (1996), Yoo et al. (2000), Yoo and Donthu (2001), Pappu and Quester (2006), and Tong and Hawley (2009) conducted studies on brand equity. Duarte et al. (2018) and Abubakar and Ilkan (2016) conducted studies on e-WOM. In this context, the following models and hypotheses of the research were designed in order to determine the mediating and regulatory effect of e-WOM between the brand equity of the e-servicescape.
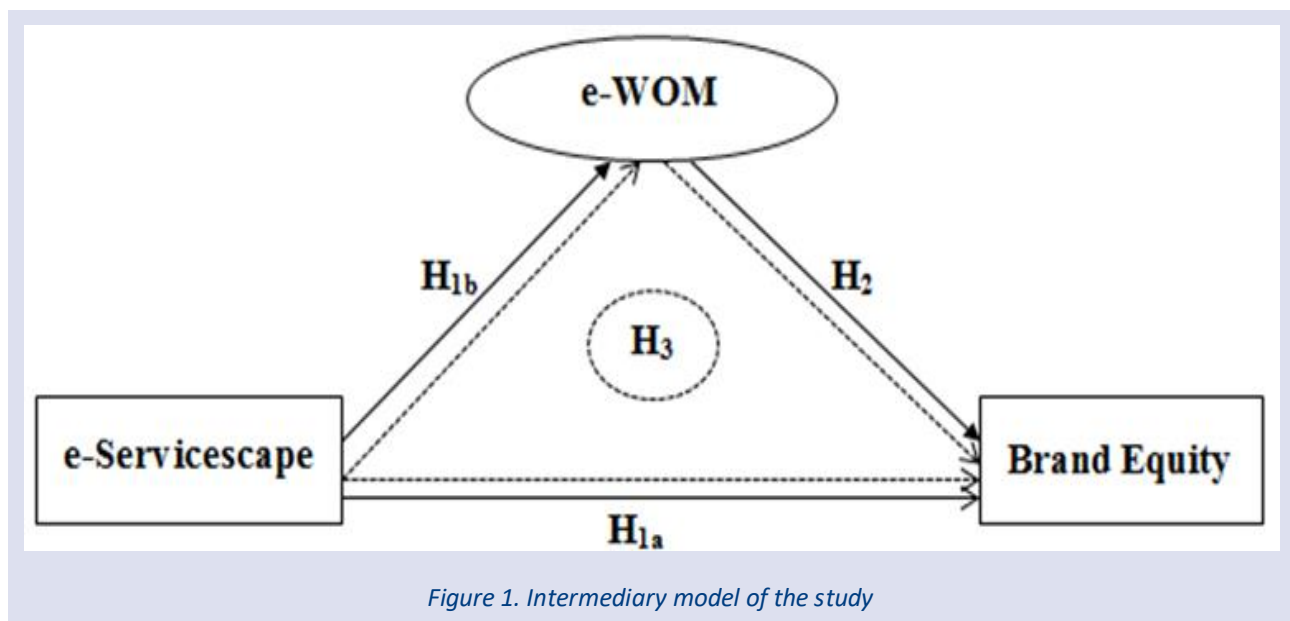

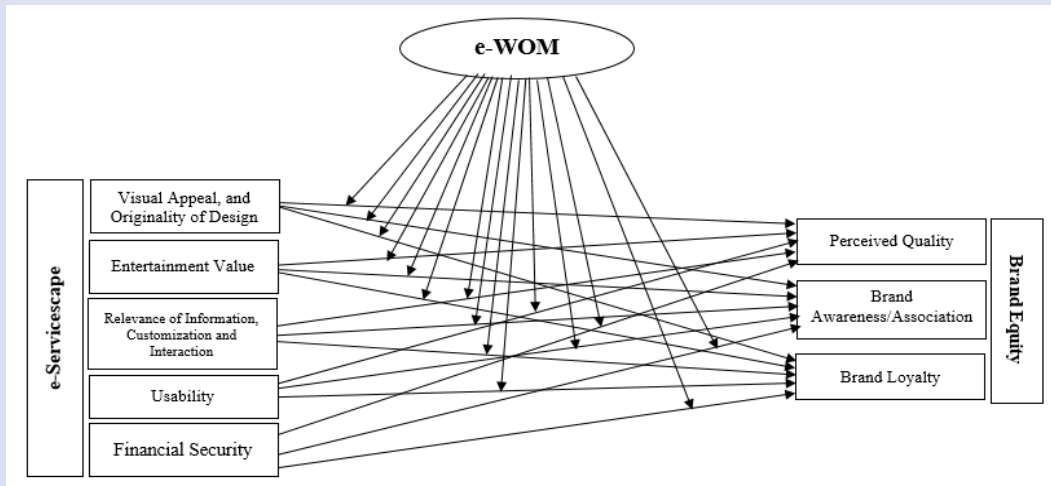*Figure 1. Intermediary model of the study*

Figure 2. Regulatory model of the study

H_1: The electronic servicescape has a positive direct impact on (a) brand equity and (b) e-WOM.

H_2: Electronic word of mouth has a positive effect on brand equity.

H_3: Electronic word of mouth has a partial mediating role in the effect of e-servicescape on brand equity.

H_4: The electronic servicescape (a-visual appeal and originality of design, b-entertainment value, c-usability, d-relevance of information, customization and interaction, e-financial security) has a direct impact on brand equity (a-perceived quality, b-brand awareness/association, c-brand loyalty).

H_5: Electronic word of mouth has a regulatory role in the effect of e-servicescape (a-visual appeal and originality of design, b-entertainment value, c-usability, d-relevance of information, customization and interaction, e-financial security) on brand equity (a-perceived quality, b-brand awareness/association, c-brand loyalty).

H_6: Electronic word of mouth has an impact on brand equity (a-perceived quality, b-brand awareness/association, c-brand loyalty).

Methodology

Sample

Within the scope of business to consumer, the questionnaire form created to reach consumers who use electronic commerce more and to collect more qualified data was transferred to the electronic environment and a link was obtained. Then, the survey form link was delivered to the consumers via e-mail, WhatsApp, BIP and social network links. When consumers click on this link, they are directed to the web page where the survey form is located. The first question (consumers purchasing/not purchasing a product from the internet at least once in the last six months) of the survey form is for control purposes, and the survey continues when consumers select the answer option "yes", and the survey ends when they select the answer option "no". The questionnaire form was first applied to 50 consumers for the pilot study. It has

been determined that 42 of these consumers have shopped online in the last six months, and reliability and validity analyzes have been made with the data obtained. It was seen that the pre-test results were generally compatible with the literature. In addition, it is estimated that the reliability coefficients will increase and the factor structures will become more pronounced as the sample size increases. As a result of the pre-test, necessary arrangements were made in the survey in line with the suggestions from the consumers and data collection continued, and 552 surveys were collected between 01 January and 28 February 2021. In the surveys collected, it was determined that 82.4% of the consumers have purchased products from the Internet in the last six months, and 17.6% have not purchased a product in the last six months. In this context, 455 surveys were collected from consumers who purchased products from the Internet in the last six months. 31 surveys outside the scope of B2C with only the online marketplace of the most shopping website and 22 incorrect/incomplete surveys were removed. 402 usable surveys were obtained.

Measure

The questionnaire form created to collect the data of the research includes three parts with a control question (consumers purchasing/not purchasing a product from the internet at least once in the last six months) and 13 questions. In the first part, there are five questions related to which device consumers shop with the most, frequency of online shopping, monthly internet shopping expenditure, the category they spend the most on internet shopping, and the electronic commerce website they shop most in the last six months. These questions were created by examining TÜBİSAD and Turkish Industrialists and Businessmen's Association (TÜSİAD) electronic commerce reports, the Republic of Turkey Ministry of Commerce electronic commerce data, and only online-marketplace and B2C sales websites in Turkey. In the second part of the questionnaire, there are expressions of e-servicescape, brand equity and e-WOM

scales. The statements in these scales were first translated into Turkish by a translator. These expressions, which were later translated into Turkish, were checked by two marketing experts and given their final form. The e-servicescape consists of three dimensions (aesthetic appeal, layout and functionality and financial security) and nine sub-dimensions (visual appeal, originality of design, entertainment value, usability, relevance of information, customization/personalization, interaction, ease of payment, perceived security) and has 36 expressions. The e-servicescape scale of the research was formed by using the study by Harris and Goode (2010). In addition, since Tran (2014) uses some expressions in a more understandable and different way in the mentioned scale, some expressions of the research were taken from this study. Teng et al. (2018) determined the e-servicescape scale with four dimensions (aesthetic appeal, layout and functionality, interaction with financial security), eight sub-dimensions (visual appeal, originality of design, entertainment value, usability, relevance of information, customization/personalization, ease of payment, perceived security) and 44 statements developed and adapted by Harris and Goode (2010) and Lai et al. (2014). Dassanayake and Senevirathne (2018) created the e-servicescape scale with six dimensions (visual appeal, personification, interaction, ease of use, relevance of information, and social factors) and 38 statements based on the research of Harris and Goode (2010) and Jeong et al. (2003). Harris and Goode (2010) used a seven-point likert scale, and Tran (2014) and Tran and Strutton (2020) used a five-point Likert scale to measure the expressions of e-servicescape. In this direction, it was deemed appropriate to use a five-point Likert scale (1-Strongly disagree ... 5-Strongly agree) in the study. Although brand equity has dimensions of perceived quality, brand awareness, brand loyalty and brand association, e-WOM does not have any dimensions. In addition, brand equity scale (Aaker (1991), Aaker (1996), Yoo et al. (2000), Yoo & Donthu (2001), Pappu & Quester (2006)) 12, e-WOM scale (Abubakar & Ilkan (2016), Duarte et al. (2018)) contains five statements. Since Yoo et al. (2000) and Yoo and Donthu (2001) used a five-point Likert scale to measure brand value expressions. Duarte et al. (2018) and Abubakar and Ilkan (2016) used a five-point Likert scale to measure e-WOM expressions. Therefore, a five-point Likert scale was used in this study. The third part of the questionnaire consists of seven socio-demographic questions about the gender, age, marital status, occupation, education level, average monthly income and family size of the consumer.

Descriptive Statistical Information

It has been determined that 79,1% of consumers use smart mobile phones while shopping online, and 20,9% use computers. When the frequency of online shopping is examined, 40,5% of the consumers who shop 1-2 times a month, while 2,7% of the consumers who shop 3-4 times a week. It is seen that 66,4% of consumers shop online once or twice a month and more frequently. In addition,

the rate of consumers who shop online once every three months or less frequently is 20,1%. 83,1% of consumers have a monthly internet shopping expenditure of 500 TL or less, and 55% of them have a monthly internet shopping expenditure of 250 TL or less. However, only 7,7% of consumers have a monthly internet shopping expenditure of 751 TL or more. The categories with the highest spending in internet shopping are fashion (50,5%), home-life-stationery-office (14,2%) and electronics (12,2%), these categories make up 76,9% of all categories. Auto-garden-structure market (1,2%) and sports-outdoor (2,2%) were the categories in which consumers spent the least. Trendyol (61,4%) and Hepsiburada (21,9%) are the websites where consumers shop the most in the last six months. When the demographic characteristics of the consumers are examined, 53,2% are women, 67% are between the ages of 18-35, 1,2% are 56 years and over, 50,7% are single, and the family of 82,3% consists of three or more people. In addition, it is seen that 77,1% of consumers are public employees and students, 1,5% are retired, 83,3% are graduates of higher education, and 61,2% have an average monthly income of between 2501 TL and 7500 TL.

Analysis of Empirical Results

Measurement Quality Evaluation

Expressions obtained from the results of exploratory factor analysis (EFA) and reliability analysis of aesthetic appeal, layout and functionality, and financial security dimensions were subjected to EFA and reliability analysis within the framework of the basic dimension, the e-servicescape. As a result of the analysis, the scale of the e-servicescape consisted of the Relevance of Information, Customization and Interaction (RICI), Entertainment Value (EV), Visual Appeal and Originality of Design (VAOD), Financial Security (FS) and Usability (US) factors. It is seen that these factors explain 63,72% of the total variance and the Kaiser-Meyer-Olkin (KMO) (,914) value is at an excellent level. As a result of EFA and reliability, three factors of Brand Equity (BE) were identified and these factors were defined as Perceived Quality (PQ), Brand Loyalty (BL) and Brand Awareness/Association (BAA). These factors explain 73,04% of the total variance and the KMO (,877) value is at a very good level. In the e-WOM scale, a single factor was determined and it was seen that it explained 55,64% of the total variance. In addition, the KMO (,739) value was found to be moderate. It has been determined that the e-WOM scale is the only factor as a result of EFA and reliability. The scales in question were subjected to confirmatory factor analysis (CFA), and two statements were extracted and the model was analyzed. Because the e-servicescape scale VAOD factor affected the goodness-of-fit values of one expression negatively, and the error term of an expression from the RICI factor was related to the error terms of many expressions (e-Servicescape-EFA: 65,37% and KMO: ,911). In this context, the CFA results of e-servicescape, brand equity and e-WOM scales are given in Table 1.

Table 1. Confirmatory factor analysis results

Factors and Expressions	Cronbach Alpha	Average Variance Extract (AVE)	Composite Reliability (CR)	Standardised Loading
RICI: Relevance of Information, Customization and Interaction	,873	,496	,872	
Visual information about products is easily accessible on this website.				,73
Technical details about the products are easily accessible on this website.				,78
All information on this website can be found easily.				,77
Every page on this website clearly shows what we can expect to find.				,72
This website offers buying advice that fits my needs.				,63
This website has been designed to meet my needs.				,66
This website has a search tool that helps me find the product I want.				,63
EV: Entertainment Value	,808	,607	,819	
This website is a lot of fun.				,63
I shop for the full enjoyment of this website.				,83
The enthusiasm on this website boosts my morale.				,86
VAOD: Visual Appeal and Originality of Design	,838	,549	,829	
This website is aesthetically beautiful.				,79
I love the look of this website.				,77
The images of the products on this website are interesting.				,73
This website is innovative and creative.				,66
FS: Financial Security	,800	,508	,799	
The payment facilities of this website are easy to use.				,58
Online payment processing on this website is reasonable.				,54
This website is very secure.				,82
This website is generally security conscious.				,86
US: Usability	,812	,531	,818	
This website has useful directions.				,65
From this website the new consumer can make a purchase without much help.				,73
It is handy as this website has a good keyword search facility.				,81
The functions on this website are easy to use.				,72
e-Servicescape (ESS): χ2/df: 2,582; CFI: ,929; GFI: ,896; RMSEA: ,063; SRMR: ,057				
PQ: Perceived Quality	,876	,709	,879	
The products of this website are of very high quality.				,89
I trust the quality of the products of this website.				,84
This website offers products with great features.				,79
BL: Brand Loyalty	,840	,508	,804	
I think myself loyal to this website.				,82
This website is always my first choice.				,83
If the product I am looking for is on this website, I will not buy from other websites.				,76
BAA: Brand Awareness/Association	,801	,642	,843	
I am aware of this website.				,67
I generally know the products/features of this website.				,75
Among other competing sites, I can recognize this website.				,78
I can quickly remember the symbol or logo of this website.				,65
Brand Equity (BE): χ2/df: 2,752; CFI: ,972; GFI: ,959; RMSEA: ,066; SRMR: ,040				
e-WOM: Electronic Word of Mouth Communication	,790	,407	,766	
I recommend this website.				,86
I always share info/informations about this website.				,59
I am proud to tell others that I am a customer of this website.				,66
I often read customer reviews of this website.				,44
Customer reviews of this website give me confidence in my purchasing decision.				,58
e-WOM: χ2/df: 1,304; CFI: ,999; GFI: ,996; RMSEA: ,028; SRMR: ,014				

For adequate convergent validity, the AVE value should be ,50 or greater (Bagozzi and Yi, 1988: 82; Hair et al., 2014: 605), and the CR value should be ,70 or greater to indicate sufficient convergence or internal consistency (Hair et al. et al., 2014: 605). It is seen that the AVE value (,496) of the relevance of information, customization and interaction factor is very close to the threshold value and the CR value (,872) is well above the acceptable level. In the study of Teng et al. (2018), AVE values of the originality of the design (AVE: ,447; CR: ,801), the entertainment value (AVE: ,414; CR: ,738), and the the perceived safety (AVE: ,388; CR: ,717) factors are below the threshold and the CR values are above the threshold. The results of other factors were found to be above the threshold values. In this framework, the convergent validity and internal consistency of the factors included in the measurement model are ensured. Harris and Goode (2010)'s e-servicescape scale was used by Tran (2012), Tran (2014) and Tran and Strutton (2020), but they added and subtracted factors and expressions to the scale. Harris and Goode (2010) e-servicescape scale has three factors (ten sub-dimensions) and 52 expressions, Tran (2012) e-servicescape scale has 6 factors and 25 expressions. Tran (2014) and Tran and Strutton (2020) reduced the e-servicescape scale from 10 factors and 37 statements to 7 factors and 24 statements. In this context, e-servicescape scale factors and expressions in Harris and Goode (2010) and Tran (2014) researches were examined, and the e-servicescape scale was prepared by adhering to the scales of these studies in order to be suitable for Turkey's conditions. Thus, as a result of CFA, it was determined that the e-servicescape scale of the research consisted of five factors and 22 statements, and the scale was usable. It was determined that the AVE and CR values of the brand equity scale were above the values accepted in the literature, and the convergent validity and internal consistency of the factors in the measurement model were ensured. The brand awareness/association scale was measured by Yoo et al. (2000) six statements, Yoo and Donthu (2001) five statements, Yoo and Donthu (2002) six statements, and Tran et al. (2021) five statements. The perceived quality and brand loyalty of the brand equity scale consists of three statements, brand awareness/association consists of four statements, and it is seen that the scale is usable. Finally, it was determined that the goodness-of-fit values of the e-WOM scale model were at a good level. It was determined that the AVE value (,407) of the e-WOM scale was below the threshold value and the CR value (,766) was above the value accepted in the literature. Since the model fit values of the e-WOM scale are at a good level and the internal consistency of the CR value is provided, the AVE value is acceptable (Teng et al., 2018) and the said scale can be used.

Hypothesis Tests
Testing Mediation Effect

In the research, the parcellation method was applied to the factors in the e-servicescape and brand equity scales in order to determine the mediating role of e-WOM in the effect of the e-servicescape on the brand equity and to ensure the compatibility of the research with the mediator model. Parceling is the most widely used measurement application with latent variable analysis techniques in multivariate approaches to psychometrics (Little et al., 2002: 152). In recent years, the use of expression plots in structural equation modeling (SEM) has become quite common. The technique of dividing or combining statements by parcelling is used by researchers in fields such as education, psychology, marketing and organizational research (Bandalos, 2002: 78-79). Parceling is an aggregate level indicator consisting of the sum or average of two or more expressions of a parcel (Little et al., 2002: 152), it is to collect particularly expressions in one or more parcels and to use these parcels instead of expressions as indicators of target implicit structure (Matsunaga, 2008: 261). In other words, the use of parcel scores found by adding or averaging the scores of two or more expressions instead of expression scores in SEM analysis is defined as parcellation (Bandalos, 2002: 78). The parcels are also an analytical tool (Little et al., 2013: 285). When a construct is broadly defined or when the measurement scale has multiple sub-dimensions/levels, indicators at a high aggregation level may be most appropriate. However, there is only one good measure of the construct one is interested or there are organizational constraints on the number of scales that can be included in the survey. Thus, individual scale expressions can be used as indicators, or subsets of expressions can then be aggregated or averaged to form expression parcels that serve as indicators for a partial decomposition model (Hall et al., 1999: 235). Kishton and Widaman (1994) described two approaches (internal consistency and field representation) for dealing with multidimensional expression sets. For example, a nine-item scale consisting of three dimensions (A, B and C) each measured by three statements (A1, A2 and A3) is created in the first approach (internal consistency approach) using dimensions as grouping criteria. In the first parcel, the sum or average of A1, A2, and A3 is taken and reflects dimension A. The second parcel reflects dimension B and the third reflects dimension C. In this case, a higher layer results in the implicit structure, the lower layer of internally consistent directions is used as clear indication of more higher layer or graded structure. One of the advantages of the first approach is that it keeps the multidimensional nature of the structure open and allows the unique component of a surface to be associated with other structures in the model. The second approach (area representation) attempts to take multidimensionality into account by creating parcels that also include reliable and unique aspects of multiple dimensions. In this approach, parcels are formed by combining expressions of different sizes into expression sets. For example; first parcel (A1, B1 and C1), second parcel (A2, B2 and C2), third parcel (A3, B3 and C3). Each parcel reflects all aspects or dimensions found in the indicator set (Little et al., 2002: 167-168). In this

context, with the internal consistency approach of Kishton and Widaman (1994), it was transformed into five statements by taking the averages of the five factors of the e-servicescape scale separately. It was transformed into three statements by taking the averages of the three factors of the brand equity scale separately. Thus, the variables and expressions of the research were formed as follows:

- **ESS:** ESS1:VAOD, ESS2:EV, ESS3:RICI, ESS4: US, ESS5:FS

- **BE:** BE1:PQ, BE2:BAA, BE3:BL

- **e-WOM:** EWOM1, EWOM2, EWOM3, EWOM4, EWOM5

In the mediation analysis method suggested by Baron and Kenny (1986), they stated that in order to be a mediator, the independent variable must first affect the mediating variable, second the independent variable should affect the dependent variable, and thirdly, the mediating variable should affect the dependent variable. In the mediator model, all of these things happen and if the effect of the independent variable on the dependent variable decreases in the mediating model, compared to the model without the mediator (direct effect of the independent variable on the dependent variable) partial mediation is mentioned. If the independent variable has no effect on the dependent variable in the mediating model full mediation is mentioned (Baron & Kenny, 1986: 1177). In this direction, first of all, it was analyzed through the structural model with implicit variables in order to test the total effect of the e-servicescape on brand equity. As a result of the analysis, it was determined that the goodness of fit values were at an acceptable level in the literature (χ^2/df: 3,959; GFI: ,955; NFI: ,939; CFI: ,953; TLI: ,931; SRMR: ,036; RMSEA: ,086). The effect of the e-servicescape on the brand equity was found to be statistically significant (β= ,954; p<,001) and the e-servicescape explained 90.9% of the brand equity.

In order to test the relationship between the variables in the mediator model of the research, the research hypotheses were analyzed through the latent variable structural model. As a result of the analysis, it was determined that the values of goodness of fit (χ^2/df: 3,907; GFI: ,912; NFI: ,907; CFI: ,928; TLI: ,905; SRMR: ,045; RMSEA: ,085) were at an acceptable level in the literature and the results of the analysis are given in Table 2.

The positive direct effect of the e-servicescape on the brand equity (β= ,437; p<,001) and the e-WOM (β= ,846; p<,001) were found to be statistically significant. It was observed that the e-servicescape explained 71,6% of the e-WOM. In addition, it was determined that the positive effect of e-WOM on brand equity (β= ,598; p<,001) was statistically significant. Thus, research hypotheses H$_{1a}$, H$_{1b}$ and H$_2$ were accepted. When these results are examined, it is seen that the research meets all three conditions of Baron and Kenny (1986)'s mediation analysis. The

mediating effect of the e-servicescape on the brand equity was found to be ,506 and the 95% confidence interval was ,276-,775. The mediation effect was found to be statistically significant (p<,001), since the said interval did not include the zero value. In other words, H$_3$ research hypothesis is supported since e-WOM has a positive partial mediation effect on the brand equity of the e-servicescape.

Testing Regulatory Effect

It is generally expressed as a qualitative (gender, class, etc.) or quantitative (reward level, etc.) variable that affects the direction and/or strength of the relationship between the moderator, the independent or predicted variable, and the dependent variable or criterion. Regulatory indicates that the causal relationship between two variables changes as a function of the moderator variable, and statistical analysis needs to measure and test the differential effect of the independent variable on the dependent variable. In this context, measuring and testing differential effects partially depends on the level of measurement of the independent and moderator variable. Baron and Kenny (1986) stated the effect of predictor, moderator and interaction (predictor x moderator) on the outcome variable in the moderator model, and stated that if the interaction is significant on the outcome variable, there would be a moderator effect. The predictor and moderator can have significant effects on the outcome variable. However, they do not directly test the regulatory hypothesis conceptually (Baron & Kenny, 1986: 1174). In order to determine the regulatory role of e-WOM in the effect of the dimensions of the e-servicescape on brand equity and to ensure the compatibility of the research with the regulatory model, the averages of the VAOD, EV, RICI, US, FS, PQ, BAA, BL and e-WOM variables were calculated. Then, five interaction variables were obtained by multiplying the independent variables (VAOD, EV, RICI, US, FS) and the moderator (e-WOM) separately using SPSS. Regulatory analysis was conducted through AMOS within the scope of the regulatory model of the research. In addition, statistically insignificant regression paths were deleted in the estimation of regression weights, thus increasing the degree of freedom of the model (Tunçer, 2018: 150; Gaskin, 2016). In this context, the model of the research has an acceptable goodness-of-fit values (χ^2/df: 1,785; SRMR: ,015; GFI: ,990; CFI: ,996; PCLOSE: ,583; HI90: ,074; RMSEA: ,044). R2 in the results of the research's regulatory analysis represents the rate of explanation of the dependent variable of the independent variable. In this context, it is seen that the dependent variables of the model have high R2 values (PQ: ,48; BAA: ,57 and BL: ,54). The high R2 values of the study and the excellent goodness of fit values of the model show that the model is suitable and sufficient to test the research hypotheses. In this direction, the results of the regulatory effect test regarding the research hypotheses are given in Table 3.

Table 2. Mediation effect results

Variables	e-WOM		BE	
	β	SE	β	SE
ESS	,846*	,116		
R²	,716			
ESS			,437*	,143
e-WOM			,598*	,127
R²			,991	
Intermediary Effect			,506* (,276 - ,775)	

* p<,001

Table 3. Regulatory effect results

Variables	PQ		BAA		BL	
	β	SE	β	SE	β	SE
e-WOM	,250*	,054	,122*	,047	,527*	,046
EV	,089*	,043			,168*	,039
US	-,144*	,051	,123*	,046		
RICI	,283*	,055	,478*	,049	,160*	,045
FS	,308*	,051	,129*	,046		
EV x e-WOM	,073*	,035				
US x e-WOM			-,119*	,043		
RICI x e-WOM			,091*	,036		

H4$_{ba}$ and H4$_{bc}$ hypotheses are supported (p<,05), since entertainment value directly affects perceived quality (β= ,089) and brand loyalty (β= ,168) statistically. H5$_{ba}$ hypothesis was accepted (p<,05), because the moderator role of e-WOM in the effect of entertainment value on perceived quality was statistically significant (β= ,073). H4$_{ca}$ and H4$_{cb}$ hypotheses are supported (p<,05), since usability directly affects perceived quality (β= -,144) and brand awareness/association (β= ,123) statistically. H5$_{cb}$ hypothesis was accepted (p<,05), as the moderator role of e-WOM in the effect of usability on brand awareness/association was found to be statistically significant (β= -,119). H4$_{da}$, H4$_{db}$ and H4$_{dc}$ hypotheses are supported (p<,05), since the relevance of information, customization and interaction statistically directly affect perceived quality (β= ,283), brand awareness/association (β= ,478) and brand loyalty (β= ,160). H5$_{db}$ hypothesis was accepted (p<,05), as the moderator role of e-WOM in the effect of the relevance of information, customization and interaction on brand awareness/associations was found to be statistically significant (β= ,091). H4$_{ea}$ and H4$_{eb}$ hypotheses are supported (p<,05), since financial reliability directly affects perceived quality (β= ,308) and brand awareness/association (β= ,129) statistically. Hypotheses H6$_a$, H6$_b$, and H6$_c$ were accepted (p<,05), since e-WOM affected perceived quality (β= ,250), brand awareness/association (β= ,122) and brand loyalty (β= ,527) statistically. In this context, the moderator role of e-WOM was found in the effect of entertainment value on perceived quality. At the same time, the regulatory role of e-WOM has been determined in the effect of the relevance of information, customization and interaction, and usability on brand awareness/associations. The regulatory role of e-WOM on the effect of entertainment value(a) on perceived quality, usability(b) and the relevance of information, customization and interaction(c) on brand awareness/association is shown in Graph 1.

As the entertainment value of the websites increases and there is high e-WOM, the perceived quality is affected (p<,05). If the availability, customization and interaction of information increases with usability, and there is high e-WOM, the brand awareness/association is affected (p<,05). At the same time, it is seen that brand awareness/association is affected when the relevance of information on the website, customization and interaction increase, and when there is low e-WOM (p<,05). However, as the entertainment value of the websites increases, if there is low e-WOM, perceived quality is not affected. As a result, it is seen that e-WOM plays a regulatory role between the relevance of information, customization and interaction, and brand awareness/association in cases where e-WOM is high and low. In addition, when there is a high level of e-WOM, the entertainment value leads to an increase in perceived quality, and usability leads to an increase in brand awareness/association, thus e-WOM having a regulatory role. However, when low e-WOM is applied, e-WOM does not have a moderating role in the effect of entertainment value on perceived quality and usability on brand awareness/association.
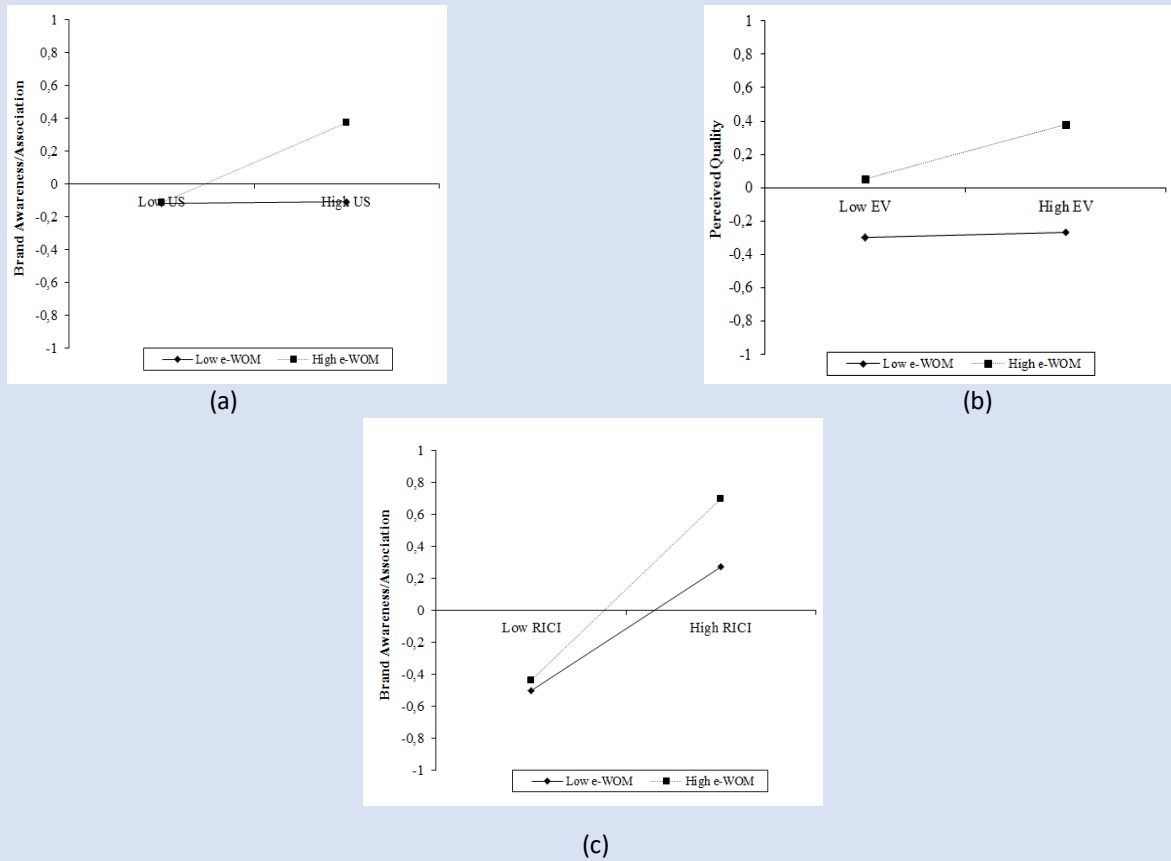
Graph 1. The Regulatory Role of e-WOM on the Effect of Entertainment Value(a) on Perceived Quality, Usability(b) and Relevance of Information, Customization and Interaction(c) on Brand Awareness/Association

Conclusion

Theoretical and Managerial Contributions

Today, traditional commerce continues to rapidly transform into digital commerce. In the digitalization process, the number of businesses and consumers using electronic commerce is increasing. In the study, it was aimed to determine the mediator and regulatory role of e-WOM in the effect of the service environments of online marketplace and B2C sales websites, which are engaged in electronic commerce on the brand equity. In addition, it is to determine the effect of e-servicescapes on e-WOM and brand equity, and the effect of e-WOM on brand equity. Within the framework of the research intermediary model, it has been determined effect on positive and direct the brand equity and e-WOM of the e-servicescape, and positively on brand equity of e-WOM. It has been determined that e-WOM has a partial mediating effect in the positive direction in the effect of the e-servicescape on brand equity. Within the scope of the regulatory model, the direct effects of entertainment value, usability, financial security and relevance of information, customization and interaction on brand equity (perceived quality, brand awareness/association and brand loyalty) were determined. It has been found that e-WOM has a moderator role in the effect of entertainment value on perceived quality, usability and relevance of information, customization and interaction on brand awareness/association. In addition, it has been determined that e-WOM has an effect on perceived quality, brand

awareness/association and brand loyalty. Since there is not to come across in the literature specifically addressing the impact of the e-servicescape on brand equity and e-WOM, the findings of this study are partially supported by those of Hakim and Deswindi (2015), Roy et al. (2014), Lai et al. (2015), Hee-Young (2016), Sreejesh and Ponnam (2017), Kechiga (2018), Phan and Pilik (2018), Tankovic and Benazic (2018), and Gharibi et al. (2020). When the literature on the determination of the effect of e-WOM on brand equity is examined, it is seen that Jalilian et al. (2013), Shojaee and Azman (2013), Vahdati and Nejad (2016), Seo and Park (2018), Syahrivar and Ichlas (2018), Dülek and Saydan (2019), Pasha and Sari (2019), Sijoria et al. (2019), Bahi et al. (2020), Foster and Johansyah (2020), Pebrianti et al. (2020), Seo et al. (2020), Taher and Almeshal (2020), Amalia et al. (2021), Budiman (2021), Febrian and Fadly (2021), Sihombing and Fachrodji (2021), Sun et al. (2021), Alipoor et al. (2022), Ulum et al. (2022), Aprilia and Purwanto (2023), Faiza and Rachman (2023), Lin et al. (2023), Syah & Widodo (2023) studies seem to support the findings of the research. However, since there is not to come across a study in the literature that affects the brand equity of the e-servicescape, studies supporting the mediator and regulatory findings could not be included. As a result, it has been determined that the e-servicescape affects brand equity and e-WOM, e-WOM has a partial mediation role in the effect of the e-servicescape on the brand equity, and e-WOM has a regulatory role in the effect of the e-servicescape on the brand equity.

As in traditional commerce, in electronic commerce consumers generally goods and services want to research, compare, buy better quality and cheaper before purchasing. In order to achieve this situation in the electronic commerce sector, businesses attach importance to and develop features such as the visuality, design, usability, ease of payment, perceived security, etc. of the website. Since consumers want to use their time economically by making the process of purchasing goods and services quickly, a brand appears in front of the consumer in electronic commerce. Consumers can convey their satisfaction or dissatisfaction with the brand during and after the process of purchasing goods and services by sharing them on platforms such as customer comments, social networking sites, blogs, etc. Thus, the market size and sales volume of the brand can be significantly affected by the e-WOM. In this context, it is thought that the positive or negative situations that consumers may experience in the e-servicescape may also affect the relevant brand. In order to increase the value of electronic commerce brands, first of all, e-servicescapes should give importance to entertainment value, usability, relevance of information, customization, interaction and financial security. In addition, brands should be aware of the importance of reaching out to each other of consumers and ensure greater consumer satisfaction, recognizing that this is an important element in increasing their value. Brands should meet the demands of the consumers without distinguishing the consumers who have problems at every stage of purchasing, and increase satisfaction by providing promotions etc. to the consumer. In addition, brands can contact and provide satisfaction to consumers who share negative comments in the customer comments section or on different platforms. The comments about the brand on the complaint sites can be examined, so that the problems of the consumers can be resolved more quickly and the brand equity can be positively affected by providing satisfaction. For example, electronic commerce brands have insufficient possibilities after discount campaigns in some periods. After purchasing the product, the consumer may experience grievances such as late delivery of the product, incomplete delivery, non-delivery of the product and inability to receive support from customer services due to the inadequate transportation system of the brand. As a result, the consumer can share their experiences about the brand in question on different platforms, especially the consumer comments on the brand, and enable them to reach other consumers. When brands give importance to the complaints of the consumers, they can also follow the consumer comments from different platforms. Thus, consumer satisfaction and brand equity can be positively affected. It can be said that the development of the e-servicescape will positively affect both brand equity and e-WOM. At the same time, since the e-servicescape significantly affects the e-WOM, it can be suggested that electronic commerce brands organize their e-servicescapes and make up for their deficiencies in line with the suggestions and requests of the consumers.

Limitation and Future Studies

One significant limitation is the inability to focus research on a single e-commerce brand. In addition, the inability of some electronic commerce brands in Turkey to work in cooperation with researchers is another limitation of the research. Another limitation is that some of the consumers do not use electronic commerce and their purchasing power is low, and that electronic commerce brands are more in the background than physical brands.

Electronic servicescapes and consumer-based brand equities of electronic commerce brands can be evaluated and compared on a brand basis. The research can be done using qualitative methods at national and international level. In electronic commerce, intermediary and regulatory studies on online marketplaces can use a five-dimensional e-servicescape and a three-dimensional brand equity scale. In this context, general and socio-demographic questions can play a regulatory role in future studies, and second and third level regulatory studies can be planned.

Katkı Oranları ve Çıkar Çatışması /Contribution 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: MK (%60), EY (%40) Veri Toplanması: MK (%60), EY (%40) Veri Analizi: MK (%60), EY (%40) Makalenin Yazımı: MK (%60), EY (%40) Makale Gönderimi ve Revizyonu: MK (%60), EY (%40)	**Author Contributions**	Research Design: MK (%60), EY (%40) Data Collection: MK (%60), EY (%40) Data Analysis: MK (%60), EY (%40) Writing the Article: MK (%60), EY (%40) Article Submission and Revision: MK (%60), EY (%40)
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