Sosyal Bilimler
EKEV AKADEMİ
dergisi

**Makalenin geliş tarihi:** 03.03.2024
**1.Hakem Rapor Tarihi:** 01.05.2024
**2.Hakem Rapor Tarihi:** 01.06.2024
**Yayına Kabul Tarihi:** 18.11.2024

eISSN:2148-0710 - pISSN:1301-6229

# MEDIATING ROLE OF PERCEIVED USEFULNESS OF WEBROOMING IN THE IMPACT OF PERCEIVED EASE OF SEARCHING ONLINE ON ATTITUDE TOWARD WEBROOMING[1]

*Mehmet Kürşat TÜZEMEN*[*]*-Gülçin BİLGİN TURNA*[**]

***Abstract***

*"Webrooming" refers to the practice where consumers search products online before purchasing them in a physical store. Webrooming is a complex behavior driven by the need for detailed research, the desire for a tangible product experience, convenience, trust, and social considerations. The main purpose of this study is to examine the effect of Internet users' perceived ease of searching online (PESO) on their attitudes toward Webrooming (ATW) while analyzing the possible mediating role of perceived usefulness of webrooming (PUW) in this effect. Besides, difference analyses are adopted to understand whether PESO, ATW and PUW values change according to gender, age, education, marital status and income level. 322 surveys collected online by convenience sampling method were analyzed. The results show that perceived ease of search in the online environment affects the attitude toward webrooming. In addition, the perceived usefulness of webrooming is a full mediator in the effect of perceived ease of searching online on attitude toward webrooming. This finding suggests the convenience and effectiveness of online research translate into a perceived benefit, enhancing the overall attractiveness of webrooming.*

***Keywords:*** *Webrooming, Perceived ease of searching online, Attitude toward webrooming, Perceived usefulness of webrooming, Mediation.*

***Jel Codes:*** *M1, M310.*

***Algılanan Çevrimiçi Arama Kolaylığının Webrooming Kavramına İlişkin Tutum Üzerindeki Etkisinde Webrooming Kavramının Algılanan Faydasının Aracılık Rolü***

***Öz***

*"Webrooming", tüketicilerin bir ürünü fiziksel bir mağazadan satın almadan önce çevrimiçi ortamda araştırmalarını ifade etmektedir. Webrooming, ayrıntılı araştırma ihtiyacı, somut bir ürün deneyimi arzusu, kolaylık, güven ve sosyal kaygılardan kaynaklanan karmaşık bir davranıştır. Bu çalışmanın temel amacı, İnternet kullanıcılarının algılanan çevrimiçi arama kolaylığının (PESO), webrooming davranışına yönelik tutum (ATW) üzerindeki etkisini incelemek ve bu etkide webrooming davranışının algılanan faydasının (PUW) olası aracı rolünü analiz etmektir. Ayrıca PESO, ATW ve PUW ölçeklerindeki değerlerin cinsiyete, yaşa, eğitime, medeni duruma ve gelir düzeyine göre değişip değişmediğini anlamak için fark analizleri yapılmıştır. Kolayda örnekleme yöntemiyle çevrimiçi ortamda toplanan 322 anket analize tabi tutulmuştur. Sonuçlar, çevrimiçi ortamda algılanan arama kolaylığının webrooming davranışına yönelik tutumu etkilediğini göstermektedir. Webrooming davranışının algılanan faydasının, çevrimiçi arama yapmanın algılanan kolaylığının webrooming davranışına yönelik tutum üzerindeki etkisinde tam bir aracı olduğu tespit edilmiştir. Bu bulgu, çevrimiçi araştırmanın rahatlığı ve etkililiğinin, webrooming davranışının genel çekiciliğini artırarak algılanan bir faydaya dönüştüğünü göstermektedir.*

***Anahtar Kelimeler****: Webrooming, Çevrimiçi ortamda araştırma yapmaya yönelik algılanan kolaylık, Webrooming davranışına yönelik tutum, Webrooming kavramının algılanan kullanışlılığı, Aracılık etkisi.*

***Jel Kodları:*** *M1, M310.*

[1] This paper is derived from the doctoral dissertation of Mehmet Kürşat Tüzemen.

[*] PhD student, Recep Tayyip Erdogan University, Department of Business Administration, Marketing, mehmetkursat_tuzemen19@erdogan.edu.tr, https://orcid.org/0000-0003-4714-0767

[**] Associate Professor, Recep Tayyip Erdogan University, Department of Business Administration, Marketing, gulcin.turna@erdogan.edu.tr, https://orcid.org/0000-0003-1684-6548

## 1. Introduction

"Webrooming" is the exploration of information online preceding offline purchases (Flavián et al., 2016; Kang, 2018), besides "showrooming" means the acquisition of data within physical retail settings prior to online transactions (Neslin et al., 2014). Deloitte (2017) reported that 69% of consumers engage in webrooming for Thanksgiving purchases, while 46% opt to visit brick-and-mortar stores initially to assess products before conducting online searches for better pricing. Seeking hybrid solutions (Kalyanam & Tsay, 2013), consumers strategically leverage specific channel attributes across different stages of their buying process (Van Bruggen et al., 2010). There is a trend among online buyers to adopt webrooming behaviors prior to making purchases from physical retail outlets (Andrews et al., 2016).

The integration of online and offline channels has been shown to positively impact consumers' perceptions of service quality and attitudes toward retailers (Pantano & Viassone, 2015), enhancing customer experiences (Sit et al., 2018). The phenomena of webrooming and showrooming are influenced by a multitude of drivers and determinants (Harris et al., 2018), and their implications for firm competition and profitability may vary depending on factors such as product attributes (Kushwaha & Shankar, 2013), search costs (Jing, 2018), and consumer characteristics (Kang, 2018). The concept of channel integration has been observed to contribute to sales expansion (Cao & Li, 2015), thus being highly esteemed by consumers' satisfaction, loyalty, and positive word-of-mouth communication (Huré et al., 2017).

The emergence of webrooming and showrooming poses potential challenges to omnichannel retailers, where consumers utilize one retailer's channel for planning and preparation but ultimately switch to another retailer's channel for their purchases (Chiou et al., 2012). The prevailing dominance of webrooming within omnichannel retail environments can be attributed to several factors, including an augmented array of available channels (Verhoef et al., 2015), heightened usage of mobile devices (Wolny & Charoensuksai, 2014), and the increased technological empowerment of consumers (Chiu et al., 2011). Despite the potentially adverse effects of webrooming on online profitability (Chiu et al., 2011), this phenomenon did not get considerable attention. Thus, comprehending webrooming and showrooming is imperative for researchers and practitioners, enabling them to anticipate consumer expectations during these behaviors and devise strategies for crafting effective customer experiences (Lemon & Verhoef, 2016).

To the best of authors' knowledge, this is the first study in Türkiye that proposes a webrooming model drawing from the Technology Acceptance Model (TAM) introduced by Davis (1989), with the aim of enhancing the comprehension of webroom behavior. TAM facilitates an understanding of behavior by elucidating how online information-seeking activities aid consumers in mitigating risks and uncertainties, thereby shaping their perceived usefulness of webrooming behavior within the broader context of the purchasing process (Flavián et al., 2016).

## 2. Theoretical Framework

### Perceived Ease of Searching Online

TAM has been extensively utilized to assess Internet acceptance, particularly in the context of online shopping, by measuring perceived ease of use and usefulness regarding Internet usage. Perceived ease of use plays a pivotal role in shaping attitudes toward usability, thus influencing individuals' inclination toward utilizing online platforms for shopping (Alba et al., 1997). The fascination of online shopping continues to grow alongside the growing use of the Internet, primarily attributed to its time-

saving nature, convenience, cost-saving benefits compared to traditional shopping methods, and the perceived safety of online transactions (Seo & Kim, 1999).

Perceived ease of searching online refers to the extent to which consumers can access information online (Davis, 1989). Online channels have emerged as effective sources for consumers, particularly due to rapid information retrieval systems, enabling efficient access to extensive product information (Huang et al., 2009). The ease of online information retrieval has been identified as a significant determinant influencing the selection of online channels for search purposes (Verhoef et al., 2007), contributing to the overall usefulness of webrooming experiences (Arora & Sahney, 2017). TAM accounts for external variables that impact perceptions of ease of use and usefulness, with both factors ultimately influencing attitudes toward usability and shaping individuals' intentions to engage in online shopping activities. Notably, perceived usefulness exerts a direct influence on the intention to use online platforms for shopping, while behavioral intention subsequently affects actual behavior (Arora & Sahney, 2019). Thus, H1 is constructed as follows:

*H1: Perceived ease of searching online will positively affect consumers' attitude toward webrooming.*

**Perceived Usefulness of Webrooming**

As posited by Davis (1989), perceived ease of use plays a crucial role in shaping users' attitudes and intentions to adopt a specific information system. Perceived usefulness includes the perceived benefits and enduring advantages associated with online shopping. The ability to find discounted prices, coupled with the low search costs inherent in online browsing, contributes to the perception of benefit. Additionally, the ease of comparing products across different virtual stores further reinforces the notion of usefulness (Barkhi & Wallace, 2007). E-commerce platforms offer various applications aimed at facilitating consumers' purchasing decisions. However, certain services, such as instant product comparisons necessitating sensory experiences like tasting or smelling, may not be as readily available or affordable compared to traditional market settings. Nonetheless, the perceived usefulness of online shopping has the potential to positively influence consumers' attitudes toward making purchases.

The framework of uncertainty theory serves as a basic lens for investigating the drivers behind webrooming behaviors (Santos & Goncalves, 2019). In today's retail landscape, online reviews stand out as a particularly pertinent source of information. These reviews give consumers the opportunity to comprehend product functionalities and features, facilitating comparisons with available alternatives and thereby mitigating uncertainty (Arora & Sahney, 2018). Empirical evidence presented by Flavian et al. (2016), underscores the positive impact of online reviews on offline shopping experiences. Online reviews can serve a complementary role, especially in instances where consumers exhibit less inclination toward physical engagement. Consequently, the perceived usefulness of online reviews is posited as a causal determinant of webrooming intent.

In the realm of webroom creation, the perceived usefulness of webrooming is defined by consumers' individual conviction that engaging in the webrooming process aids in facilitating informed purchasing decisions. The utility of the webrooming sequence lies in the perception that conducting online information searches contributes to bolstering confidence in product and/or brand selections. Furthermore, online consumer reviews play a pivotal role in mitigating perceived risks associated with product acquisition and shaping consumer behavior (Flanagin et al., 2016). Additionally, they empower consumers to make understanding product choices, enhancing overall decision-making efficacy (Willmott, 2014). Therefore, H2 is proposed as follows:

*H2: Perceived ease of searching online will positively affect consumers' perceived usefulness of webrooming.*

### Attitude Toward Webrooming

According to existing literature, physical stores demonstrate superiority over their online counterparts in various aspects, including product evaluation (Mehra et al., 2017), salesperson assistance (Chiu et al., 2011), and the experiential aspect of entertainment shopping (Rohm & Swaminathan, 2004). They also offer immediate possession of products (Noble et al., 2005) and after-sales services (Verhoef et al., 2007). Noble et al. (2005) argue that physical retailers provide the highest shopping value by enabling immediate possession of products. Conversely, the absence of salesperson support in online stores is considered a notable competitive disadvantage, often prompting consumers to opt for offline shopping experiences (Kacen et al., 2013). Additionally, information in physical stores facilitates better product evaluation and instills confidence in offline product choices (Peck & Childers, 2003). Furthermore, physical stores are preferred by consumers for after-sales services, product repairs, and installations (De Keyser et al., 2015; Verhoef et al., 2007). The social aspect of shopping, including the enjoyment of spending time with family and friends, is highlighted as a unique feature of offline shopping experiences that cannot be replicated online (Rohm & Swaminathan, 2004). On these grounds, H3 is developed as follows:

*H3: Perceived usefulness of webrooming will positively affect consumers' attitude toward webrooming.*

### Mediating Effect of Perceived Usefulness of Webrooming in the Effect of Perceived Ease of Searching Online on Attitude Toward Webrooming

Perceived value encapsulates the balance between the perceived cost associated with purchasing a product and the perceived benefits derived from it (Lee et al., 2007). Prior to finalizing their purchasing decisions, consumers typically engage in research activities. Perceived value is often categorized into two main dimensions: hedonic and utilitarian values (Shankar & Jain, 2020). Consumers derive enjoyment from information-seeking activities on online platforms, irrespective of whether they ultimately make a purchase (Jebarajakirthy & Shankar, 2020). Various elements such as website aesthetics, audio-visual features, interactive components, and videos serve as cues that heighten the hedonic value experienced by consumers during online information searches (Islam et al., 2019). Furthermore, online information searches offer consumers an array of utilitarian values, contributing to their overall perceived value (Jebarajakirthy et al., 2020).

Thanks to online platforms, consumers benefit from the ability to compare prices across different products, facilitating informed purchasing decisions (Shankar & Datta, 2019). Additionally, consumers can conduct comparative analyses of products from various brands within a specific product category, aiding in brand comparison (Park et al., 2012). The abundance of online information serves to diminish consumers' perceived risk and potential future regret (Shankar & Jain, 2020). Furthermore, online information furnishes consumers with lots of sensory cues, including design, color, size, and fit details regarding different products, thereby enhancing utilitarian values for consumers. Notably, online information searches contribute to heightened purchase intentions by alleviating consumers' time, effort, and resource expenditures typically associated with acquiring knowledge about specific products, thereby augmenting utilitarian values for consumers. Thus, H4 is formulated accordingly:

*H4. Perceived usefulness of webrooming mediates the positive effect of perceived ease of searching online on attitude toward webrooming.*

## 3. Methodology

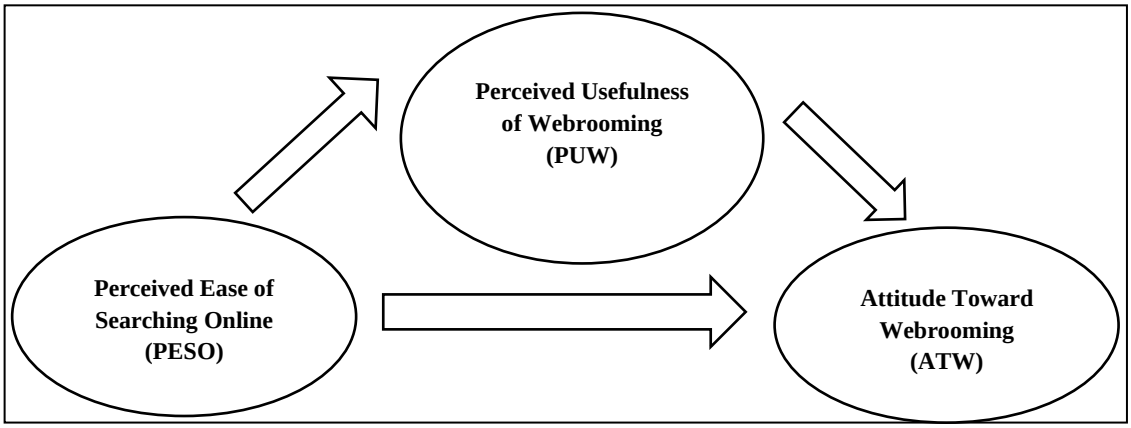
This section presents the objectives and scope of the study, results of Explanatory Factor Analysis (EFA) and Cronbach's Alpha reliability analysis conducted to assess the validity and reliability of the measurement tools, outlines the research hypotheses and model, and describes the statistical analysis methods employed during data analysis. The online Google Questionnaire Form utilized in the study was constructed by using the five-point Likert scale. Perceived ease of searching online (PESO), perceived usefulness of webrooming (PUW) and attitude toward webrooming (ATW) scales were taken from Arora and Sahney's (2019) study.

Prior to the main data collection phase, a pilot study involving 30 participants was conducted to refine questionnaire items and mitigate potential confusion. Subsequently, the questionnaire was distributed among participants, who were also encouraged to share the questionnaire link with their social networks. A total of 327 completed forms were included for analysis purposes in the last two weeks of March 2023.

The primary aim of this study is to investigate the impact of Internet users' PESO on their ATW, while also exploring the potential mediating role of PUW in this relationship which is demonstrated in the research model as in Figure 1. Additionally, the study seeks to ascertain whether the perceived usefulness of webrooming varies based on demographic factors such as gender, age, education, marital status, and income.

**Figure 1**

*Research Model*




Ethical approval for this research was granted by the Social Sciences and Humanities Ethics Committee of Recep Tayyip Erdogan University on February 15, 2023, under decision number 2023/050.

## 4. Findings

The data collected for this research, consisting of 327 online questionnaires, were imported into IBM SPSS 25.0 from Microsoft Excel for analysis. Upon initial data examination, extreme values were identified using the z-score method. It was found that 5 questionnaires had z-score values exceeding 3. As these 5 questionnaires comprised less than 5% of the total data and did not raise suspicions of manipulation, 5 questionnaires were excluded from the study, in line with recommendations by Tabachnick and Fidell (2013, p. 73). Table 1 demonstrates demographic findings of 322 participants.

**Table 1**

*Demographic and Descriptive Statistics*

| Item | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Gender | Female | 196 | 60.9% |
| | Male | 126 | 39.1% |
| | **Total** | **322** | **100.0%** |
| Age | 20-30 | 130 | 40.4% |
| | 31-40 | 76 | 23.6% |
| | 41-50 | 54 | 16.8% |
| | 51+ | 62 | 19.3% |
| | **Total** | **322** | **100.0%** |
| Education | Undergraduate | 68 | 21.1% |
| | Graduate | 194 | 60.3% |
| | Postgraduate | 60 | 18.6% |
| | **Total** | **322** | **100.0%** |
| Marital status | Single | 181 | 56.2% |
| | Married | 141 | 43.8% |
| | **Total** | **322** | **100.0%** |
| Monthly income | 8,000 TL and under | 98 | 30.4% |
| | 8,001-15,000 TL | 64 | 19.9% |
| | 15,001-20,000 TL | 89 | 27.6% |
| | 20,001 TL and above | 71 | 22.0% |
| | **Total** | **322** | **100.0%** |

*It is seen that 60.9% of the participants are female, 40.4% are between the ages of 20-30, 60.3% have postgraduate degrees, 56.2% are single and 30.4% have an income below 8,000 TL.

When Table 1 is examined, it was determined that the majority of the participants were female, between the ages of 20-30, postgraduate graduates, single and had an income below 8,000 TL. Table 2 below presents the scale items along with their mean scores and the corresponding standard deviation (SD) in brackets.

**Table 2**

*Descriptive Statistics of the Scales*

| ***Perceived ease of searching online (PESO)*** | **Mean(SD)** |
|---|---|
| | Overall: 4.345(0.72) |
| *PESO1: It is easier to seek information online than offline.* | 4.348(0.568) |
| *PESO2: It is easy to obtain information you are looking for online.* | 4.382(0.736) |
| *PESO3: It is easy to use online channels for searching product information.* | 4.304(0.847) |
| ***Perceived usefulness of webrooming (PUW)*** | **Mean(SD)** |
| | Overall: 3.794(0.97) |
| *PUW1: Webrooming helps me to overcome the reluctance in product purchase.* | 3.529(0.905) |
| *PUW2: Webrooming helps me gain confidence about my choices.* | 3.746(1.004) |
| *PUW3: Webrooming helps me believe that I have made the right choice.* | *3.789(0.982*) |
| *PUW4: I am convinced about my choice after I webroom for a product.* | *3.773(1.042)* |
| *PUW5: First searching information online helps me make right product choices offline.* | *4.134(0.919)* |
| ***Attitude toward webrooming (ATW)*** | **Mean(SD)** |
| | Overall: 3.914(0.96) |
| *ATW1: It is a good idea to webroom.* | *3.941(0.950)* |
| *ATW2: It is wise to webroom.* | *3.988(0.927)* |
| *ATW3: It is desirable for me to webroom.* | *3.814(1.009)* |

The means of the items of the PESO scale range from 4.304 to 4.382. This shows that the participants have generally positive views on the ease of searching for information online. The means of the items on the PUW scale ranged from 3.556 to 4.134. This indicates that participants found webrooming to be generally beneficial, but the degree of this benefit varied. The means of the items on the ATW scale range from 3.814 to 3.988. This indicates that the participants have a generally positive attitude towards webrooming. The mean values in all scales are generally high, indicating that the participants' positive perceptions and attitudes on these issues are strong.

Table 3 demonstrates the Exploratory Factor Analysis (EFA) and Cronbach Alpha values of the scales.

**Table 3**

*EFA of the Scales and Cronbach's Alpha Analyses*

| ***Perceived ease of searching online (PESO)*** | **Factor Loadings** |
|---|---|
| *PESO1* | 0.824 |
| *PESO2* | 0.777 |
| *PESO3* | 0.679 |
| Kaiser-Meyer-Olkin Sampling Adequacy | KMO=0.617 |
| Bartlett Test of Sphericity | $\chi^2(3)\approx130.964$ |
| Explained Variance | %58.136 |
| Cronbach's Alpha | r=0.625 |
| ***Perceived usefulness of webrooming (PUW)*** | **Factor Loadings** |
| *PUW1* | 0.891 |
| *PUW2* | 0.890 |
| *PUW3* | 0.861 |
| *PUW4* | 0.787 |
| *PUW5* | 0.669 |
| Kaiser-Meyer-Olkin Sampling Adequacy | KMO=0.850 |
| Bartlett Test of Sphericity | $\chi^2(10)\approx899.259$ |
| Explained Variance | %67.863 |
| Cronbach's Alpha | r=0.879 |
| ***Attitude toward webrooming (ATW)*** | **Factor Loadings** |
| *ATW1* | 0.948 |
| *ATW2* | 0.926 |
| *ATW3* | 0.875 |
| Kaiser-Meyer-Olkin Sampling Adequacy | KMO=0.712 |
| Bartlett Test of Sphericity | $\chi^2(3)\approx684.767$ |
| Explained Variance | %84.058 |
| Cronbach's Alpha | r=0.903 |

***** (5%) Symbolizes statistical significance at the significance level, $\chi 2$: Chi-Square Test statistic, (includes test degrees of freedom in brackets), [includes test significance value in square brackets.] ≈: Shows that the value is approximate.

When Table 3 is examined, PESO scale indicates a sufficient level of sampling adequacy (KMO>0.6). Bartlett Sphericity test shows that the items in the scale have a statistically sufficient

level of relationship at the 5% significance level to explain the parent phenomenon ($\chi 2(3)\approx 130.964$ $p<0.05$). Factor scores over 0.5 were calculated for all items in the scale. It is seen that 58.136% of the scale variance can be explained by a single factor. These findings show that the scale is a measurement tool capable of making structurally valid measurements. When the scale reliability statistics are examined, it is seen that it is a generally accepted and reliable measurement tool ($0.6<r<7$). PUW scale indicates a sufficient level of sampling adequacy (KMO>0.8). Bartlett Sphericity test shows that the items in the scale have a statistically sufficient level of relationship at the 5% significance level to explain the parent phenomenon ($\chi 2(10)\approx 899.259$, $p<0.05$).

Factor scores over 0.5 were calculated for all items in the scale. It is seen that 67.863% of the scale variance can be explained by a single factor. These findings show that the scale is a measurement tool capable of making structurally valid measurements. When the scale reliability statistics are examined, it is seen that it is a generally accepted and reliable measurement tool ($0.8<r<0.9$). ATW scale indicates a sufficient level of sampling adequacy (KMO>0.7). Bartlett Sphericity test shows that the items in the scale have a statistically sufficient level of relationship at the 5% significance level to explain the parent phenomenon ($\chi 2(3)\approx 84.058$, $p<0.05$). Factor scores over 0.5 were calculated for all items in the scale. It is seen that 84.058% of the scale variance can be explained by a single factor. These findings show that the scale is a measurement tool capable of making structurally valid measurements. When the scale reliability statistics are examined, it is seen that it is a generally accepted and reliable measurement tool ($0.8<r<0.9$).

Table 4 shows the values of descriptive statistics of the variables, including skewness, kurtosis and Kolmogorov-Smirnov values to test for normal distribution.

**Table 4**

*Descriptive Statistics of Variables, Including Skewness, Kurtosis, and Kolmogorov-Smirnov Values, to Test for Normal Distribution*

| **Statistics** | | **PESO** | **ATW** | **PUW** |
|---|---|---|---|---|
| **Mean** | | 4.345 | 3.914 | 3.794 |
| **Median** | | 4.333 | 4.000 | 3.750 |
| **Maximum** | | 5.000 | 5.000 | 5.000 |
| **Minimum** | | 2.333 | 1.000 | 1.000 |
| **Std. Dev.** | | 0.717 | 0.962 | 0.970 |
| **Skewness** | **Coefficient** | -0.713 | -0.541 | -0.530 |
| | **S.E** | 0.384 | 0.384 | 0.384 |
| | **P** | [0.065] | [0.133] | [0.141] |
| **Kurtosis** | **Coefficient** | -0.264 | 0.338 | 0.091 |
| | **S.E** | 0.271 | 0.271 | 0.271 |
| | **P** | [0.331] | [0.213] | [0.737] |
| **Kolmogorov-Smirnov** | | W(322)= 0.208* [0.000] | W(322)= 0.101* [0.001] | W(322)= 0.137* [0.000] |
| **Observations** | | 322 | 322 | 322 |

* Indicates significance at the 5% significance level, W: Kolmogorov-Smirnov statistics, (test degrees of freedom are in brackets), [test significance values are in square brackets.]

When Table 4 is examined, PESO is distributed between minimum 2.333 and maximum 5.000 values, not normally but close to normal, with a standard deviation value of 0.647 around the mean of 4.345 ($|S|<1$, $W(322)= 0.208$, $p<0.05$). Skewness values falling outside the range of -1 to +1

indicate a substantially skewed distribution (Hair et al., 2013). The ATW variable is not normally distributed, but close to normal, with a standard deviation of 0.881 around the mean of 3.914 between minimum 1,000 and maximum 5,000 values (|S|<1, W(322)= 0.101, p<0.05). The PUW variable is distributed not normally but close to normal, with a standard deviation value of 0.888 around a mean of 3.727 between minimum 1,000 and maximum 5,000 values (|S|<1, W(322)= 0.137, p<0.05). It is a rare ideal situation to see normal distribution in social sciences. It is suggested that the skewness coefficients should be examined for such data, and it would be correct to assume that the assumption of the normal distribution is met if there is no significant skewness (Tabachnick and Fidell, 2013).

Table 5 shows the findings regarding the direct effects and mediation model with a regression-based approach following the Baron and Kenny procedure and the Hayes method.

**Table 5**

*Findings on Direct Effects and The Mediation Model*

| **Equation 1-Dependent Variable: PUW** | | | | | |
|---|---|---|---|---|---|
| **Variable** | **Coefficient** | **Std. Coefficient** | **S.E** | **t** | **p** |
| Constant | 1.478 | - | 0.290 | 5.091* | [0.000] |
| PESO (a) | 0.518 | 0.377 | 0.068 | 7.599* | [0.000] |
| **Equation 2-Dependent Variable: ATW** | | | | | |
| **Variable** | **Coefficient** | **Std. Coefficient** | **S.E** | **t** | **p** |
| Constant | 1.938 | - | 0.288 | 6.733* | [0.000] |
| PESO (c) | 0.455 | 0.334 | 0.068 | 6.644* | [0.000] |
| **Equation 3-Dependent Variable: ATW** | | | | | |
| **Variable** | **Coefficient** | **Std. Coefficient** | **S.E** | **t** | **p** |
| Constant | 0.830 | - | 0.243 | 3.419* | [0.001] |
| PESO (c') | 0.067 | 0.049 | 0.056 | 1.198 | [0.232] |
| PUW (b) | 0.749 | 0.755 | 0.043 | 17.326* | [0.000] |
| **Mediation** | **a*b** | **Std. a*b** | **S.E** | **%95 lower** | **%95 upper** |
| PESO→PUW→ATW | 0.388 | 0.285* | 0.037 | 0.212 | 0.355 |
| **Diagnostic Statistics** | | | | | |
| **F Test** | F(2, 319)=184.680* | | | [0.000] | |
| **Determination** | R=0.901 | | | $R^2$=0.812 | |
| **Durbin Watson Autocorrelation Test** | D.W=0.586 | | | | |
| **White Test for Heteroskedasticity** | $\chi^2$(66)=90.857* | | | [0.023] | |
| **Variance Inflation Factor (VIF)** | PUW | | | VIF=1.165 | |
| | ATW | | | VIF=1.165 | |

*Symbolizes statistical significance at the (5%) significance level, S.E: Standard Error [inside square brackets contain test significance (p) values] F: F Test Statistic, χ2: Chi-Square Test Statistic (inside brackets contains test degrees of freedom.) % 95 Lower: Lower limit of the Bootstrap confidence interval with 2000 resamples, 95% Upper: Upper limit of the Bootstrap confidence interval with 2000 resamples, Indirect effect standard errors were calculated with the Bootstrap method with 2000 resamples. All standard errors are calculated as resistant HC0 (Huber-White).

When Table 5 is examined, according to the White heteroscedasticity test findings, it is seen that there is a significant heteroscedasticity problem in the model at the 5% significance level (χ2(66)=90.857, p<0.05). Since the Durbin Watson test statistic is seen to be significantly less than 2, it can be said that there is a serious autocorrelation problem in the model. To prevent efficiency losses

that may arise from heteroscedasticity and autocorrelation problems, the model was estimated with HC0 (Huber-White) Robust standard errors. When the Variance Inflation Factor (VIF) values are examined, it can be said that there is almost no doubt of multicollinearity problem in the model (VIF<5).

When the effect of the PESO scale in Equation 1 on the PUW is examined, it is seen that a statistically significant and positive coefficient is estimated at the 5% significance level (a=0.377, p<0.05). In other words, it can be said that as the level of PESO increases, the PUW also increases. Therefore, H2 is accepted. When the effect of PESO in Equation 2 on the ATW is examined, it is seen that a statistically significant and positive coefficient is estimated at the 5% significance level (c=0.334, p<0.05). In other words, the increase in PESO that consumers perceive from online searches causes their attitudes to change positively. Thus, H1 is accepted. This relationship shows that the first condition of the Baron and Kenny (1986) procedure is met. When the effect of the PUW in Equation 3 on ATW is examined, it is seen that a statistically significant and positive coefficient is estimated at the 5% significance level (b=0.755, p<0.05). In other words, it can be said that increasing/decreasing the PUW increases/decreases positive ATW. This finding shows that H3 is also accepted. This relationship shows that the second and third condition of the Baron and Kenny (1986) procedure is met.

When the effect of the PESO in Equation 3 on the ATW scale is examined, it is seen that it is not statistically significant at the 5% significance level (c'=0.049, p>0.05). When the effects of the PESO on the ATW in the second and third equations are compared, as the fourth condition within the framework of the Baron and Kenny (1986) procedure, it is seen that it is statistically significant at the 5% significance level in Equation 2 and statistically insignificant in equation 3. In line with the 4 conditions examined for the Baron and Kenny (1986) procedure, it can be said that the entire effect of the perceived ease of online research on the ATW occurs through the PUW. In other words, there is full mediation in the model.

When the mediating relationship is examined in the context of the Hayes (2018) method, it is seen that the standardized indirect effect coefficient is 0.285 and the lower and upper limits of the 95% confidence level do not include the value zero (0). In this case, it can be said that the indirect effect is statistically significant at the 5% significance level. The fact that the indirect effect coefficient is greater than 0.25 indicates that the indirect effect is large. In line with these findings, it is decided that PUW has a very high indirect effect in the effect of PESO on ATW. Therefore, H4 is accepted.

In this part of the study, the findings of the independent sample T-Test and Anova Test are included in the analyses made to examine the differences between descriptive and demographic groups. The Independent Sample T-Test findings examining the differences by gender are as in Table 6.

**Table 6**

*Independent Sample T-Test Findings Examining Differences by Gender*

| Variable | Gender | N | $\bar{X}$ | Std. Dev | Levene | T-Test |
|---|---|---|---|---|---|---|
| PESO | Female | 196 | 4.291 | 0.642 | F(1, 320)=0.037 | t(320)=0.848 |
| | Male | 126 | 4.429 | 0.648 | [0.848] | [0.062] |
| PUW | Female | 196 | 3.665 | 0.905 | F(1, 320)=0.082 | t(320)=-1.570 |
| | Male | 126 | 3.823 | 0.856 | [0.775] | [0.117] |
| ATW | Female | 196 | 3.874 | 0.895 | F(1, 320)=2.114 | t(320)=-1.015 |

| | | | | | |
|---|---|---|---|---|---|
| Male | 126 | 3.976 | 0.858 | [0.147] | [0.311] |

* Indicates significance at the 5% significance level, $\overline{X}$: Mean, Std. Dev: Standard Deviation, F: F-test statistics, t: T-test statistics, (test degrees of freedom are in brackets), [test significance values are in square brackets.] T-test statistic was chosen in accordance with Levene heterogeneity test.

When Table 6 is examined, no statistically significant difference was found between female (4.291±0.642) and male (4.429±0.648) participants in PESO (t(320)=0.848, p>0.05). No statistically significant difference was found between female (3.665±0.905) and male (3.823±0.856) participants in PUW (t(320)=-1.570, p>0.05). No statistically significant difference was found between female (3.874±0.895) and male (3.976±0.858) participants in ATW (t(320)=-1.015, p>0.05).

The findings of the Anova Test performed to examine the differences between age groups are as in Table 7.

**Table 7**

*Anova Test Findings Examining Differences by Age Groups*

| Variable | Age | N | $\overline{X}$ | Std. Dev | Levene | Anova | Post Hoc |
|---|---|---|---|---|---|---|---|
| PESO | A)20-30 | 130 | 4.323 | 0.585 | F(3, 318)=0.959 | F(3, 318)=7.164* | D<A, B, C* |
| | B)31-40 | 76 | 4.531 | 0.651 | | | |
| | C)41-50 | 54 | 4.463 | 0.655 | [0.412] | [0.000] | |
| | D)51+ | 62 | 4.059 | 0.665 | | | |
| PUW | A)20-30 | 130 | 3.717 | 0.916 | F(3, 318)=0.702 | F(3, 318)=0.771 | - |
| | B)31-40 | 76 | 3.822 | 0.858 | | | |
| | C)41-50 | 54 | 3.764 | 0.815 | [0.552] | [0.551] | |
| | D)51+ | 62 | 3.597 | 0.931 | | | |
| ATW | A)20-30 | 130 | 3.949 | 0.881 | F(3, 318)=0.096 | F(3, 318)=1.644 | - |
| | B)31-40 | 76 | 4.013 | 0.912 | | | |
| | C)41-50 | 54 | 3.938 | 0.842 | [0.962] | [0.179] | |
| | D)51+ | 62 | 3.699 | 0.861 | | | |

* Indicates significance at the 5% significance level, $\overline{X}$: Mean, Std. Dev: Standard Deviation, F: F-test statistics, (test degrees of freedom are in brackets), [test significance values are in square brackets.] Before post hoc tests, Levene's heterogeneity test findings were checked, for homogeneity condition we used Tamhane's T2, for heterogeneity condition we used Tukey's Post Hoc tests, - Post Hoc tests were not performed for the variables in which there was no significant difference in the Anova Test results.

As seen in Table 7, significance at the 5% level was met among participants in the age groups of 20 to 30 years (4.323±0.585), 31 to 40 (4.531±0.651), 41 to 50 years old (4.463±0.655), 51 years and older (4.059±0.665) in terms of PESO. Significance was not met in the age groups of 20 to 30 years (3.717±0.916), 31 to 40 (3.822±0.858), 41 to 50 years old (3.764±0.815), 51 years and older (3.597±0.931) in terms of PUW. Among participants in the age groups of 20 to 30 years (3.949±0.881), 31 to 40 (4.013±0.912), 41 to 50 years old (3.938±0.842), 51 years and older (3.699±0.861) in terms of ATW level, there was no statistically significant difference ($F_{(3, 318)}$=1.644, p>0.05).

The findings of the Anova Test, which was conducted to examine the differences depending on the education level, are as in Table 8.

**Table 8**

*Anova Test Findings Examining Differences by Education Level*

| Variable | Education | N | $\bar{X}$ | Std. Dev | Levene | Anova | Post Hoc |
|---|---|---|---|---|---|---|---|
| PESO | Undergraduate | 66 | 4.374 | 0.637 | F(2, 317)=1.226 [0.295] | F(2, 317)=0.443 [0.642] | - |
| | Graduate | 194 | 4.351 | 0.654 | | | |
| | Postgraduate | 60 | 4.272 | 0.639 | | | |
| PUW | Undergraduate | 66 | 3.708 | 0.947 | F(2, 317)=1.106 [0.332] | F(2, 317)=1.550 [0.214] | - |
| | Graduate | 194 | 3.670 | 0.917 | | | |
| | Postgraduate | 60 | 3.900 | 0.694 | | | |
| ATW | Undergraduate | 66 | 3.869 | 0.968 | F(2, 317)=1.575 [0.209] | F(2, 317)=0.091 [0.913] | - |
| | Graduate | 194 | 3.918 | 0.882 | | | |
| | Postgraduate | 60 | 3.928 | 0.786 | | | |

* Indicates significance at the 5% significance level, $\bar{X}$: Mean, Std. Dev: Standard Deviation, F: F-test statistics, (test degrees of freedom are in brackets), [test significance values are in square brackets.] Before post hoc tests, Levene's heterogeneity test findings were checked, for homogeneity condition we used Tamhane's T2, for heterogeneity condition we used Tukey's Post Hoc tests, - Post Hoc tests were not performed for the variables in which there was no significant difference in the Anova Test results.

When Table 8 is examined, in terms of PESO, there was no statistically significant difference between the participants who are undergraduates (4.374±0.637), graduates (4.351±0.654), postgraduates (4.272±0.639) ($F_{(2,317)}$=0.443, p>0.05). In terms of PUW, there was no statistically significant difference between undergraduates (3.708±0.947), graduates (3.67±0.917), postgraduates (3.9±0.694) (F(2,317)=1.550, p>0.05). In terms of ATW, there was no statistically significant difference between the participants with undergraduates (3.869±0.968), graduates (3.918±0.882), and postgraduates (3.928±0.786) ($F_{(2,317)}$=0.091, p>0.05).

The results of the independent Sample T-Test, which was conducted to test the differences according to marital status, are as in Table 9.

**Table 9**

*Independent Sample T-Test Findings Examining Differences by Marital Status*

| Variable | Marital | N | $\bar{X}$ | Std. Dev | Levene | T-Test |
|---|---|---|---|---|---|---|
| PESO | Single | 181 | 4.387 | 0.670 | F(1, 320)=2.442 [0.119] | t(320)=1.322 [0.187] |
| | Married | 141 | 4.291 | 0.614 | | |
| PUW | Single | 181 | 3.735 | 0.901 | F(1, 320)=0.608 [0.436] | t(320)=0.185 [0.853] |
| | Married | 141 | 3.716 | 0.875 | | |
| ATW | Single | 181 | 3.919 | 0.913 | F(1, 320)=0.327 [0.568] | t(320)=0.113 [0.910] |
| | Married | 141 | 3.908 | 0.841 | | |

* Indicates significance at the 5% significance level, $\bar{X}$: Mean, Std. Dev: Standard Deviation, F: F-test statistics, t: T-test statistics, (test degrees of freedom are in brackets), [test significance values are in square brackets.] T-test statistic was chosen in accordance with Levene heterogeneity test.

According to Table 9, no statistically significant difference was found between single (4.387±0.67) and married (4.291±0.614) participants in PESO (t(320)=1,322, p>0.05). No statistically significant difference was found between single (3.735±0.901) and married (3.716±0.875) participants in PUW (t(320)=0.185, p>0.05). No statistically significant difference was

found between single (3.919±0.913) and married (3.908±0.841) participants in ATW (t(320)=0.113, p>0.05).

The findings of the Anova Test, which was conducted to examine the differences according to monthly income status, are as in Table 10.

**Table 10**

*Anova Test Findings Examining Differences by Income Level*

| Variable | Wage | N | $\bar{X}$ | Std. Dev | Levene | Anova | Post Hoc |
|---|---|---|---|---|---|---|---|
| PESO | 0-8000 TL | 98 | 4.313 | 0.635 | F(3, 318)=2.087 [0.102] | F(3, 318)=1.253 [0.291] | - |
| | 8001-15000 TL | 64 | 4.240 | 0.704 | | | |
| | 15001-20000 TL | 89 | 4.378 | 0.620 | | | |
| | 20001 TL + | 71 | 4.441 | 0.639 | | | |
| PUW | 0-8000 TL | 98 | 3.676 | 0.893 | F(3, 318)=1.919 [0.126] | F(3, 318)=1.779 [0.141] | - |
| | 8001-15000 TL | 64 | 3.504 | 0.996 | | | |
| | 15001-20000 TL | 89 | 3.907 | 0.740 | | | |
| | 20001 TL + | 71 | 3.771 | 0.918 | | | |
| ATW | 0-8000 TL | 98 | 3.946 | 0.853 | F(3, 318)=1.749 [0.157] | F(3,318)=2.318 [0.179] | - |
| | 8001-15000 TL | 64 | 3.667 | 1.006 | | | |
| | 15001-20000 TL | 89 | 3.955 | 0.769 | | | |
| | 20001 TL + | 71 | 4.042 | 0.905 | | | |

* Indicates significance at the 5% significance level, $\bar{X}$: Mean, Std. Dev: Standard Deviation, F: F-test statistics, (test degrees of freedom are in brackets), [test significance values are in square brackets.] Before post hoc tests, Levene's heterogeneity test findings were checked, for homogeneity condition we used Tamhane's T2, for heterogeneity condition we used Tukey's Post Hoc tests, - Post Hoc tests were not performed for the variables in which there was no significant difference in the Anova Test results.

When Table 10 is examined, in terms of PESO, among respondents with monthly income of 0 to 8000 TL (4.313±0.635), between 8001 and 15000 TL (4.24±0.704), between 15001 and 20000 TL (4.378±0.62), 20001 TL and more (4.441±0.639), there was no statistically significant difference ($F_{(3,318)}$=1.253, p>0.05). In terms of PUW, among participants with a monthly income of 0 to 8000 TL (3.676±0.893), between 8001 and 15000 TL (3.504±0.996), between 15001 and 20000 TL (3.907±0.74), 20001 TL and more (3.771±0.918), there was no statistically significant difference ($F_{(3,318)}$=2.779*, p>0.05). In terms of ATW, among participants with monthly income of 0 to 8000 TL (3.946±0.853), between 8001 and 15000 TL (3.667±1.006), between 15001 and 20000 TL (3.955±0.769), 20001 TL and more (4.042±0.905), there was no statistically significant difference ($F_{(3,318)}$=2.318, p>0.05).

## 5. Conclusion

H1, H2 and H3 were supported in this research which is in parallel with Arora and Sahney's (2017; 2018; 2019), Aw et al.'s (2021), Shankar and Jain's (2021), Fauzi and Pratomo's (2023) studies. In webrooming, easy-to-navigate online platforms improve consumers' attitudes toward using the Internet for product research before in-store purchases by reducing cognitive load and effort. From a consumer perspective, the ease of accessing comprehensive online product information empowers consumers to make informed decisions, increasing their confidence and satisfaction, which positively influences their attitude toward webrooming. The Information Systems Success Model highlights system quality, including ease of use, as vital for user satisfaction. High-quality online

search systems with intuitive interfaces and accurate results enhance user satisfaction and foster a positive attitude toward pre-purchase online research. Webrooming also reduces perceived risk associated with purchasing products. Easy access to reliable online product information helps mitigate risks related to quality, pricing, and suitability, leading to a more positive attitude toward webrooming. For retailers, improving online platforms to offer seamless, efficient, and user-friendly search experiences is crucial.

A notable finding of this study is that the relationship between perceived ease of searching online and attitude toward webrooming is fully mediated by the perceived usefulness of webrooming (H4). This finding implies that when individuals perceive that researching products or services online is easy, it influences their perception of the usefulness of webrooming, which in turn affects their attitude toward webrooming. In other words, the ease with which individuals can conduct research online leads them to perceive webrooming as more useful, and this perceived usefulness then shapes their overall attitude toward webrooming. However, it is important to acknowledge that these findings are limited to the responses provided by the participants in a certain period. Mediation effect suggests that the perceived usefulness of webrooming plays a crucial role in how individuals perceive and approach the concept of webrooming. It highlights the importance of individuals' perceptions of the utility and practicality of webrooming in shaping their overall attitude toward this practice. Furthermore, understanding this mediation effect can be valuable for businesses and marketers aiming to optimize their online and offline sales strategies. By focusing on enhancing the perceived usefulness of webrooming, such as by providing detailed product information, user reviews, and comparison tools, companies can positively influence consumers' attitudes toward webrooming and potentially drive greater customer engagement and satisfaction in both online and offline channels.

It's imperative to distinguish between perceived search and purchase benefits and the perceived usefulness of webroom behavior, with the latter emerging from the general sequence of online search and offline purchase. Addressing poor product diagnosis in online stores, e-retailers can offer three-dimensional and audio-visual product videos to enhance product evaluation and retain customers seeking instant gratification through expedited delivery services. To foster trust, e-retailers should employ secure technologies to protect consumer data, offer money-back guarantees to mitigate psychological risks, and improve after-sales services. Additionally, enhancing social presence online with a human touch and social cues can positively influence purchase intention. Considering the opening of physical stores alongside online platforms may further mitigate risks and build trust among consumers.

Future research directions may include examining the impact of online seller reputation on consumers' webrooming behavior, exploring shopping motivations that drive online research before offline purchases, and empirically validating the uncertainty reduction resulting from online store visits before offline purchases. Comparative studies could investigate differences in webrooming behavior when using mobile devices versus desktop computers for online searches. Additionally, future studies could explore the influence of social media reviews and recommendations on the perceived usefulness and ease of online searching, as well as conduct cross-cultural research to understand how cultural differences affect webrooming behavior and the perceived ease and usefulness of online searches. Investigating the role of website quality such as design, loading speed, and interactivity on the perceived ease of searching online and its impact on webrooming, along with delving into psychological factors such as consumer confidence, trust in online information, and risk perception, will provide deeper insights. Further research could also explore how in-store technology such as augmented reality or digital kiosks influence the overall webrooming experience and consumer attitudes. Applying principles of behavioral economics, future research could examine how

different types of incentives such as discounts or loyalty programs) offered online or in-store affect the perceived usefulness and ease of webrooming.

## 6. References


Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., & Wood, S. (1997). Interactive home shopping: Consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *Journal of Marketing*, *61*(3), 38-53.

Andrews, D., Criscuolo, C., & Gal, P. N. (2016). *The best versus the rest: The global productivity slowdown, divergence across firms and the role of public policy*. OECD.

Arora, S., & Sahney, S. (2017). Webrooming behaviour: A conceptual framework. *International Journal of Retail & Distribution Management*, *45*(7/8), 762-781.

Arora, S., & Sahney, S. (2018). Consumer's webrooming conduct: An explanation using the theory of planned behavior. *Asia Pacific Journal of Marketing and Logistics*, *30*(4), 1040-1063.

Arora, S., & Sahney, S. (2019). Examining consumers' webrooming behavior: An integrated approach. *Journal of Marketing Intelligence and Planning*, *37*(3), 339-354.

Aw, E. C. X., Basha, N. K., Ng, S. I., & Ho, J. A. (2021). Searching online and buying offline: Understanding the role of channel-, consumer-, and product-related factors in determining webrooming intention. *Journal of Retailing and Consumer Services*, *58*, 102328.

Barkhi, R., & Wallace, L. (2007). The impact of personality type on purchasing decisions in virtual stores. *Information Technology and Management*, *8*, 313-330.

Baron, M., & Keny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 1173-1182.

Cao, L., & Li, L. (2015). The impact of cross-channel integration on retailers' sales growth. *Journal of Retail*, *91*(2), 198-216.

Chiou, J. S., Wu, L. Y., & Chou, S. Y. (2012). You do the service but they take the order. *Journal of Business Research*, *65*(7), 883-889.

Chiu, H. C., Hsieh, Y. C., Roan, J., Tseng, K. J., & Hsieh, J. K. (2011). The challenge for multichannel services: Cross-channel free-riding behavior. *Electronic Commerce Research and Applications*, *10*(2), 268-277.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, & user acceptance of information technology. *MIS Quarterly*, *13*, 319-340.

De Keyser, A., Lemon, K. N., Klaus, P., & Keiningham, T. L. (2015). A framework for understanding and managing the customer experience. *Marketing Science Institute Working Paper Series*, *85*(1), 15-121.

Deloitte, (2017). Pre-Thanksgiving pulse survey. November 20. https://bit.ly/2IOKEg6.

Fauzi, F. I., & Pratomo, L. A. (2023). Factors affecting luxury consumers on webrooming intention. *Jurnal Ekonomi Trisakti, 3(*2), 2683-2692.

Flanagin, A. J., Metzger, M. J., Pure, R., Markov, A., & Hartsell, E. (2014). Mitigating risk in ecommerce transactions: Perceptions of information credibility and the role of user-generated

ratings in product quality and purchase intention. *Electronic Commerce Research, 14*(1), 1-23.

Flavián, C., Gurrea, R., & Orús, C., (2016). Choice confidence in the webrooming purchase process: The impact of online positive reviews and the motivation to touch. *Journal of Consumer Behavior, 15*(5), 459-476.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. (2013). *Multivariate data analysis.* Pearson Education Limited.

Harris, P., Riley, F. D. O., & Hand, C. (2018). Understanding multichannel shopper journey configuration: An application of goal theory. *Journal of Retailing and Consumer Services, 44,* 108-117.

Hayes, A. (2018). *Introduction to mediation, moderation and conditional process analysis: A regression-based approach.* The Guildford.

Huang, P., Lurie, N. H., & Mitra, S. (2009). Searching for experience on the web: An empirical examination of consumer behavior for search and experience goods. *Journal of Marketing, 73*(2), 55-69.

Huré, E., Picot-Coupey, K., & Ackermann, C. L. (2017). Understanding omni-channel shopping value: A mixed-method study. *Journal of Retailing and Consumer Services, 39,* 314-330.

Islam, H., Jebarajakirthy, C., & Shankar, A. (2019). An experimental based investigation into the effects of website interactivity on customer behavior in online purchase context. *Journal of Strategic Marketing*, 1-24. https://www.doi.org/10.1080/0965254X.2019.1637923

Jebarajakirthy, C., & Shankar, A. (2020). Impact of online convenience on mobile banking adoption intention: A moderated mediation approach. *Journal of Retailing and Consumer Services, 58,* 102323. https://www.doi.org/10.1016/j. jretconser.2020.102323

Jebarajakirthy, C., Yadav, R., & Shankar, A. (2020). Insights for luxury retailers to reach customers globally. *Marketing Intelligence & Planning, 38*(7), 797-811. https://www.doi.org/10.1108/MIP-10-2019-0493

Jing, B. (2018). Showrooming and webrooming: Information externalities between online and offline sellers. *Marketing Science, 37*(3), 469-483.

Kacen, J. J., Hess, J. D., & Chiang, W. Y. K. (2013). Bricks or clicks? Consumer attitudes toward traditional stores and online stores. *Global Economics and Management Review, 18*(1), 12-21.

Kalyanam, K., & Tsay, A. A. (2013). Free riding and conflict in hybrid shopping environments: Implications for retailers, manufacturers, and regulators. *The Antitrust Bulletin, 58*(1), 19-68.

Kang, J. Y. M. (2018). Showrooming, Webrooming, and user-generated content creation in the omnichannel era. *Journal of Internet Commerce, 17*(2), 145-169.

Kushwaha, T., & Shankar, V. (2013). Are multichannel customers really more valuable? The moderating role of product category characteristics. *Journal of Marketing, 77*(4), 67-85.

Lee, C. K., Yoon, Y. S., & Lee, S. K. (2007). Investigating the relationships among perceived value, satisfaction, and recommendations: The case of the Korean DMZ. *Tourism Management, 28*(1), 204–214. https://www.doi.org/10.1016/j. tourman.2005.12.017

Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing, 80*(6), 69–96.

Mehra, A., Kumar, S., & Raju, J. S. (2017). Competitive strategies for brick-and-mortar stores to counter showrooming. *Management Science, 13*(2), 1-15.

Neslin, S. A., Jerath, K., Bodapati, A., Bradlow, E. T., Deighton, J., Gensler, S., … & Zhang, Z. J. (2014). The interrelationships between brand and channel choice. *Marketing Letters, 25*(3), 319-330.

Noble, S. M., Griffith, D. A., & Weinberger, M. G. (2005). Consumer derived utilitarian value and channel utilization in a multi-channel retail context. *Journal of Business Research, 58*(12), 1643-1651.

Pantano, E., & Viassone, M. (2015). Engaging consumers on new integrated multichannel retail settings: Challenges for retailers. *Journal of Retailing and Consumer Services, 25*, 106-114.

Park, E. J., Kim, E. Y., Funches, V. M., & Foxx, W. (2012). Apparel product attributes, web browsing, and e-impulse buying on shopping websites. *Journal of Business Research, 65*(11), 1583-1589. https://www.doi.org/10.1016/j. jbusres.2011.02.043

Peck, J., & Childers, T. L. (2003). To have and to hold: The influence of haptic information on product judgments. *Journal of Marketing, 67*(2), 35-48.

Rohm, A. J., & Swaminathan, V. (2004). A typology of online shoppers based on shopping motivations. *Journal of Business Research, 57*(7), 748-757.

Santos, S., & Gonçalves, H. M. (2019). Multichannel consumer behaviors in the mobile environment: Using fsQCA and discriminant analysis to understand Webrooming motivations. *Journal of Business Research, 101*, 757-766. https://www.doi.org/10.1016/j.jbusres.2018.12.069

Seo & Kim. (1999). An empirical study in effects of cost advantage in online transaction: Customer perception of use of Internet shopping malls. Proceedings of Korean Academic Society of Business Administration, *Spring Conference*, 225-234.

Shankar, A., & Datta, B. (2019). Measuring mobile commerce service quality: A review of literature. *M-Commerce: Experiencing the Physical Retail*, 319.

Shankar, A., & Jain, S. (2021). Factors affecting luxury consumers' webrooming intention: A moderated-mediation approach. *Journal of Retailing and Consumer Services, 58*, 102306. https://www.doi.org/10.1016/j.jretconser.2020.102306

Sit, J. K., Hoang, A., & Inversini, A. (2018). Showrooming and retail opportunities: A qualitative investigation via a consumer-experience lens. *Journal of Retailing and Consumer Services, 40*, 163-174.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics: Pearson new international edition*. Pearson.

Van Bruggen, G. H., Antia, K. D., Jap, S. D., Reinartz, W. J., & Pallas, F. (2010). Managing marketing channel multiplicity. *Journal of Service Research, 13*(3), 331-340.

Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omnichannel retailing: Introduction to the special issue on multi-channel retailing. *Journal of Retailing, 91*(2), 174-181.

Verhoef, P. C., Neslin, S. A., & Vroomen, B. (2007). Multichannel customer management: Understanding the research-shopper phenomenon. *International Journal of Research in Marketing, 24*(2), 129-148.

Willmott, B. (2014). Retail showrooms, mobile sales. *Journal of Direct, Data and Digital Marketing Practice, 15*(3), 229-232.

Wolny, J., & Charoensuksai, N. (2014). Mapping customer journeys in multichannel decision making. *Journal of Direct, Data and Digital Marketing Practice, 15*(4), 317-326.