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SOSYAL BİLİMLER ENSTİTÜSÜ  
İŞLETME ANABİLİM DALI  
PAZARLAMA (İNGİLİZCE) BİLİM DALI

**ANALYTICAL EXAMINATION OF AN EXPLORATORY MODEL: THE ROLE OF  
MOBILE GROCERY APPLICATION ATMOSPHERE IN CONTINUANCE  
INTENTION TO USE**

Yüksek Lisans Tezi

MERAL GÖKÇE GÜR

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## ABSTRACT

### ANALYTICAL EXAMINATION OF AN EXPLORATORY MODEL: THE ROLE OF MOBILE GROCERY APPLICATION ATMOSPHERE IN CONTINUANCE INTENTION TO USE

This study aims to investigate the impact of the mobile grocery application atmosphere on customers' continuance intention, by analyzing the influence of user experience and customer satisfaction. The research was intended to be cross-sectional and descriptive in scope. The research model comprises four variables: mobile grocery application atmosphere, customer experience, customer satisfaction, and continuance intention. Sample selection employed the simple random sampling approach, one of the probability sampling techniques. A target sample size of 202 individuals was set. The research employed the survey technique to gather data. The survey form comprises six sections. The results show that the Mobile Grocery Application (MGA) atmosphere plays a decisive role in customer satisfaction and continuance intention indirectly through hedonic and pragmatic experiences. So, the atmosphere should meet users' expectations not only for functionality but also for enjoyment and entertainment. Furthermore, customer satisfaction was found to have a strong effect on the continuance intention to use mobile grocery applications. The indirect role of atmosphere in this process is of strategic importance for the long-term success of mobile grocery applications. Careful and user-centered approaches should be adopted in atmosphere design.

**Keywords:** Mobile Grocery Application Atmosphere, User Experience, Customer Satisfaction, Continuance Intention to Use.

## ÖZET

### KEŞİFSEL BİR MODELİN ANALİTİK İNCELEMESİ: MOBİL MARKET UYGULAMASI ATMOSFERİNİN KULLANIMA DEVAM ETME NİYETİ ÜZERİNDEKİ ROLÜ

Bu çalışma, müşteri deneyimi ve müşteri memnuniyetinin etkisini analiz ederek, mobil market uygulama ortamının müşterilerin kullanıma devam etme niyeti üzerindeki etkisini araştırmayı amaçlamaktadır. Araştırmanın kesitsel ve tanımlayıcı nitelikte olması amaçlanmıştır. Araştırma modeli dört değişkenden oluşmaktadır: mobil market uygulama atmosferi, kullanıcı deneyimi, müşteri memnuniyeti ve kullanıma devam etme niyeti. Örneklem seçiminde olasılıklı örnekleme tekniklerinden biri olan basit rastgele örnekleme yaklaşımı kullanılmıştır. Hedef örneklem büyüklüğü 202 kişi olarak belirlenmiştir. Araştırmada veri toplamak amacıyla anket tekniği kullanılmıştır. Anket formu beş bölümden oluşmaktadır. Sonuçlar, mobil mağaza atmosferinin hem hedonik hem de pragmatik deneyimleri olumlu yönde etkileyerek müşteri memnuniyeti ve kullanıma devam etme niyeti üzerinde belirleyici bir rol oynadığını göstermektedir. Atmosfer, kullanıcıların yalnızca işlevsellik değil, aynı zamanda keyif ve eğlence beklentilerini de karşılamalıdır. Ayrıca, müşteri memnuniyetinin, mobil mağaza uygulamalarını kullanıma devam etme niyeti üzerinde güçlü bir etkisi olduğu bulunmuştur. Atmosferin bu süreçteki dolaylı rolü, mobil mağazaların uzun vadeli başarısında stratejik önem taşımaktadır. Atmosfer tasarımında dikkatli ve kullanıcı odaklı yaklaşımlar benimsenmelidir.

**Anahtar Kelimeler:** Mobil Market Uygulaması Atmosferi, Kullanıcı Deneyimi, Müşteri Memnuniyeti, Kullanıma Devam Etme Niyeti

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ISTANBUL, 2024

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## ABBREVIATIONS

CIU	: Continuance Intention to Use
CS	: Customer Satisfaction
Edt.	: Editor
et al.	: and others
ExpH	: Effect on Hedonic Experience
ExpP	: Effect on Pragmatic Experience
HTMT	: Heterotrait-Monotrait
MGA	: Mobile Grocery Application
TDK	: Turkish Language Association
TÜİK	: Turkish Statistical Institute

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## 1. INTRODUCTION

Today, online retailing has rapidly gained popularity among consumers, becoming a significant segment of the non-store retailing industry. As the role of Internet commerce in the retail industry continues to grow, interest in this sector has also increased. The economic impacts of the COVID-19 pandemic, in particular, have accelerated the digital transformation of retailing, leading to a rapid rise in online shopping. During the pandemic, many consumers shifted to online shopping due to their inability to visit physical stores, which in turn increased the number of companies focusing on online sales.

For online retailing to be successful, the atmospheric features of websites and user experience are crucial. A study by Eroğlu, Machleit, and Davis (2001) examined the atmospheric qualities of online retailing and their effects on consumers. The S-O-R Model used in this research provides an important framework for understanding the impact of online retailing atmospheres on consumer behavior. Elements such as website color, sound, images, and functionality directly influence consumers' shopping experiences.

Moreover, the importance of customer experience is emphasized. Customer experience refers to the "impression received" from interactions with an organization, and this impression should be highly personalized (Carbone & Haeckel, 1994). A positive customer experience enhances customer satisfaction, which in turn fosters loyalty and trust. Satisfaction emerges as a result of meeting consumers' levels of fulfillment and allows businesses to stand out from competitors (Wu, 2006; Ladhari & Leclerc, 2013).

User experience is equally crucial to marketing processes implemented through mobile applications as it is to the experience of the customers. The notion of user experience originated with the advancement of digital technology in the mid-1990s and has achieved swift popularity. User experience is the dynamic interaction between users and a product, service, or system, which leads to the formation of perception, modification of behavior, satisfaction of needs, and achievement of benefits (Hassenzahl, 2008). Within the realm of Internet marketing, the cultivation of customer happiness and customer loyalty, which are acknowledged as fundamental outcomes of the contemporary marketing strategy, leads to consumers engaging in recurring transactions. Hence, it is imperative to maximize user experience tactics to enhance consumer happiness and loyalty. The convenient accessibility of the mobile application provided to users, the user-friendly nature of the transaction menus, the promptness of transaction completion, and the overall elevated degree of satisfaction with the application result in the user's

repeated usage of the application. Hence, user experience is widely acknowledged as a decisive dimension in the realm of mobile marketing.

Customer satisfaction in online retailing depends on meeting customer demands and expectations. Businesses must be customer-centric and provide a high-quality experience to enhance long-term customer loyalty and encourage repeat purchases (Bayraktar, 2014; Kotler, 2000). In this context, the atmosphere of online stores and customer experience are critical to customer satisfaction and business success.

In this study, it is aimed to examine the effects of mobile grocery application atmosphere on continuance intention. In this context, the research model created by adapting the SOR model developed by Mehrabian and Russel (1974) is utilized. The S-O-R paradigm is a theoretical model based on environmental psychology and is frequently used to explain the effect of store atmosphere on consumer behavior. According to this paradigm, the stimulus (S) affects individuals' cognitive and emotional evaluations (O), which results in approach or avoidance behaviors (R). In this context, firstly, the effects of mobile grocery application atmosphere (S) on customer experience and customer satisfaction (O) are analyzed. Then, the effects of customer experience and customer satisfaction on continuance intention (R) are examined.

When the literature is examined, there are quite a number of studies examining the shopping experiences and behaviors of customers. Some of these studies are studies on the traditional store atmosphere. Similarly, it is observed that many studies on online shopping are also available in the literature. It is seen that some of the studies on online shopping are studies on online store atmosphere. However, there is no original study in the literature that examines the effect of the atmosphere of mobile grocery applications used as an online shopping tool on continuance intention.

The uniqueness of this study is that it deals with the effects of the mobile grocery application atmosphere on continuance within the framework of the SOR (Stimulus-Organism-Response) model. The SOR model is a useful model for understanding the subjective perception of the mobile grocery application experience.

## 2. CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

### 2.1. Mobile Grocery Application Atmosphere

#### 2.1.1. Store Atmosphere

Store atmosphere encompasses the overall sensory environment of a retail space, which includes visual, auditory, olfactory, and tactile elements. This concept is critical because it shapes customers' perceptions and behaviors, significantly influencing their shopping experience and decisions.

- **Kotler (2000)** describes the atmosphere as the perception customers form upon entering a retail space. This perception is influenced by the quality of the environment and the sensory experiences it provides.
- **Arslan (2011)** defines atmospherics as the strategic use of environmental stimuli by store managers to stimulate customer behavior and encourage purchases. This definition emphasizes the deliberate and tactical use of sensory elements to influence consumer actions.
- **Levy and Weitz (2007)** further define store atmosphere as the arrangement of sensory elements such as music, scent, lighting, and color to impact customer behavior and evoke emotional and perceptual responses. They categorize atmosphere-related variables into four main types:
  1. **Visual:** Color, luminosity, and spatial organization.
  2. **Auditory:** Music, sound, and pitch.
  3. **Olfactory:** Smell and freshness.
  4. **Tactile:** Texture, softness, and temperature.

The store atmosphere is not merely about aesthetics; it serves as a powerful tool to enhance the shopping experience and influence consumer behavior. Factors such as the store's visual appeal, the ambiance created by music, and the pleasantness of scents contribute to a positive shopping environment that can lead to:

- **Unplanned Purchases:** A well-designed atmosphere can encourage customers to make spontaneous purchases.
- **Extended Time Spent in Store:** A stimulating environment can encourage customers to browse longer, increasing the likelihood of making a purchase.

- **Increased Customer Satisfaction:** An appealing atmosphere contributes to a more enjoyable shopping experience, fostering customer loyalty and repeat visits.

In a competitive retail landscape, store atmosphere can differentiate a brand from its competitors. A unique and engaging atmosphere helps create a memorable shopping experience, which is increasingly important as consumers become more discerning and seek brands that offer exceptional experiences (Arslan & Bayçu, 2006; Yüksekbilgili, 2016).

- **Design Considerations:** To create an effective store atmosphere, businesses must consider the expectations of their target audience. This involves detailed research and understanding of customer preferences to tailor the atmosphere accordingly (Eroğlu & Karen, 1990).
- **Sensory Elements:** Key components such as music, scent, and color need to be carefully chosen to align with the store's brand identity and appeal to the target demographic. For example, soothing music and warm lighting may enhance a relaxed shopping environment, while vibrant colors and upbeat music might energize a fashion store.

### 2.1.2. E-Store Atmosphere

E-store atmosphere is "the deliberate design of the web environment in order to create a positive effect on customers and to achieve the retailer's desired reactions such as revisiting the site and exploring the site" (Dailey, 2004). Everything that stimulates perceptions and senses in the site content or interface is defined as Webmosphere, web atmospherics, or virtual atmosphere components (Manganari et al., 2009).

Atmospherics, which cause psychological and behavioral reactions of the customer in the virtual world, serve as a natural source of information about the product and the retailer. However, it has been proven to have a stronger effect than other marketing elements for the customer who comes to the point of purchase (Breugelmans & Campo, 2011). In this sense, webospheres, as a powerful marketing element, affect the customer's level of activation and satisfaction and the number of purchases, shape perceptions and attitudes towards the product and the store, increase satisfaction, influence purchase intention, and, ultimately, proximity and avoidance behaviors (Vrechopoulos, 2010; Wu et al., 2014).

Customers who can use their hearing and vision senses perceive the atmosphere as a whole. When the atmosphere is remarkable, it also increases the exploratory behavior of the customer. Designers reduce the complexity of virtual shopping by designing the site as easy to use, fast, and simple as possible since it is not possible to use the senses of touch and smell and provide customers with a pleasant shopping experience by adding interactive elements that will trigger hedonic motives. In this way, consumers'

purchase intentions and purchase behaviors are formed (Kotler & Armstrong, 2012; Pelet & Papadopoulou, 2012).

The Stimulus-Individual-Response (SOR) paradigm (Mehrabian & Russell, 1974), which was developed to see the effect of the environment on the behavior of the individual, was first adapted to retail by Donovan and Rossiter (1982) and then to e-stores by Eroglu et al. (2001) for atmosphere studies. Eroglu et al. (2001) categorized virtual store atmospherics as high task-related atmospherics and low task-related atmospherics according to whether they directly affect customers' achievement of their shopping goals.

High task-related atmospherics are all written and visual explanations in the virtual store that help the customer reach the shopping goal and help the customer reach goal. These elements that support utilitarian motivation and have a direct impact on the customer's shopping decision can be expressed as product description, price information, terms of sale, shipping and return policies, product image, stock information, and navigation aids (Vrechopoulos, 2010).

Low task-related atmospheric elements are site elements that are not directly related to the customer's achievement of the shopping goal, which enable the customer to have a pleasant time on the site develop a sense of trust towards the site, and increase the hedonic and shopping experience. The colors, stripes, background music and sounds used in the virtual store, entertainment content such as games and competitions, the amount of white space on the page, icons, map images, non-product images added for decoration and theme purposes, secure connection and secure transaction images, unity of site, site counter, site awards and names/logos of member partners are the elements that create competitive advantage by making the site more attractive and memorable (Hunter & Mukerji, 2011).

### **2.1.3. Mobile Grocery Application Atmosphere**

Generally, the term 'Atmospherics' describes the physical elements that contribute to creating a distinctive ambiance or environment in a retail environment. These elements range from lighting to layout, music, colors, and other sensory triggers that can influence customers' behavior and perceptions of the store. In the field of mobile applications, the application atmosphere encompasses the design and user experience of the application that can affect users' intentions to use the application and their actual usage habits (Hsieh et al., 2021).

In mobile applications, application atmosphere refers to the visual, auditory, and other sensory elements used to create a certain mood or environment to enrich the user experience. These elements aim to create a consistent and attractive experience for the user by covering a wide range from the visual design and layout of the application to the use of sound and animation. The positive and memorable environment

created by the app atmosphere plays an important role in increasing user satisfaction and encouraging app adoption. Existing studies reveal that the design and user experience of a mobile app are vital in determining the success of the app. Users tend to favor apps that are easy to navigate, aesthetically pleasing, and offer a seamless experience.

In order to develop a successful mobile application, businesses should consider various critical aspects of the application atmosphere. Visual design, which is one of the basic elements of the application atmosphere, has the power to influence users. The app should be simple to navigate, aesthetically clean, and contemporary. The rational use of colors, images, and fonts can shape customers' perceptions of the app and provide them with an attractive user experience (Lee & Kim, 2019).

Another vital aspect of the app atmosphere is ease of use. The app should provide an intuitive and easy navigation experience by providing customers with clear directions and commands about the various functions and features of the app. The strategic use of icons, buttons, and other visual cues contributes to making the app more friendly and accessible to users of all ages and experience levels.

The app atmosphere also plays an important role in reinforcing users' sense of trust and security. As mobile applications handle sensitive data, it is essential to address customers' concerns about the protection of this information. The app should be designed in a way that provides clear information about security measures such as encryption and two-factor authentication, and assures users that their data is safe.

Furthermore, animations, sound effects, and other sensory triggers have the power to influence the user's perception of the application. These elements can be used strategically to increase the memorability and noticeability of the app by making the user experience more engaging and interactive. However, it is important to integrate these elements in a balanced way, as excessive sensory stimulation can be overloading and distracting for users.

The influence of the app atmosphere in shaping the overall customer perception cannot be underestimated. A well-designed and user-friendly application can contribute to the image of the business and build customer loyalty and trust. Conversely, a poorly designed or difficult-to-use application can damage the prestige of the business and cause the customer to become frustrated and lose interest.

#### **2.1.4. Components of Mobile Grocery Application Atmosphere**

Consumer decisions are shaped by the interaction process in the retail space (Barros et al., 2019). The SOR model proposed by Mehrabian and Russell states that the environmental factors of the store

atmosphere act as triggers that affect consumers' behavioral tendencies through their emotional reactions. In the retail environment, atmospheric elements function as a stimulus (S), which affects the consumer's mental and/or emotional state (O) and ultimately shapes the consumer's behavioral response (R) (Mehrabian & Russell, 1974).

Atmospheric elements are strategies for the deliberate design of spaces to trigger desired behavioral reactions and are often described as a complex construct (Loureiro and Roschk, 2014). These constructs are directly related to the consumer experience. Research conducted by Turley and Milliman (2000) revealed that various scholars have proposed different categorizations for the classification of atmospheric effects. The Internet environment classifies atmospheric stimuli into four categories: virtual layout and design, virtual atmospherics, virtual theatrical components, and virtual social presence. These categories are further described as functional, informational, and communicative aspects (Gatautis & Vaiciukynaite, 2013).

According to the binary classification of atmospherics developed by Eroglu et al. (2000), the online atmosphere can function as a stimulus by dividing into high and low task-related cues. High-task cues are textual or visual site elements that lead to the fulfillment of shopping goals; examples include prices, return policies, and product descriptions. Low-task cues are site features such as animations, sounds, and pictures that do not require the completion of the shopping process. High-task cues are more task-centered than low-task cues and have the potential to enrich the online shopping experience.

According to Vrechopoulos et al. (2010), stimuli-mobile design elements refer to the intentional arrangement of mobile application settings in order to enhance users' positive feelings and reactions. This is known as mobile application atmospherics. Mobile design features are among the atmospheric aspects of the mobile setting. Magrath and McCormick (2013) introduced a paradigm for mobile marketing design that aims to identify the specific design components of retail mobile applications. Within this framework, the authors present a total of 18 distinct design elements, which are organized into four primary groups.

- Multimedia product display is defined as the ability of consumers to view the retailer's product selection with multi-media features such as videos, graphics, and visual interaction, and these features create an interactive and sensory experience (Sina & Wu, 2019). Since the design elements of the multimedia product display are the ideal level of multimedia features that correspond to the functional requirements of consumers, both high and low can be considered task-related cues; however, every detail beyond this ideal level may be less important in the context of task fulfillment.

- Informative content, on the other hand, aims to provide consumers with information about the product or service offered in a descriptive and readable text format (McCormick & Livett, 2012). Informational content contains information about the product, service, and company and is considered as high-task cues and functions as the basic components of a product page.
- Product promotion features refer to the strategies and techniques used by retailers to promote and sell their products. These features focus on the promotion and persuasion processes and include visual and written information. They consist of design elements such as coupons, promotions, prizes, and discounts. Product promotional features can have both high and low task-related cues, meaning they can play a persuasive role in helping consumers achieve their purchase goals; however, they may not be mandatory for the completion of shopping or purchase.
- Consumer-driven interactions are orientated towards enhancing consumers' experience and service quality. Instead of focusing on product promotion, these interactions give consumers control to provide them with personalized shopping experiences. This includes user-generated product reviews and augmented reality and virtual reality applications (Poncin and Mimoun, 2014). The design elements of consumer-directed interactions add richness to the shopping experience; however, they are considered low-task cues because they do not mandate the purchase of a product.

An organism is characterized by the internal mechanisms that facilitate the interaction between environmental inputs and consumer behavior (Jung Chang et al., 2014). Comprehending the emotional states of consumers is crucial for designing effective shopping environments, as these feelings strongly influence their actions. The Pleasure, Arousal, and Dominance (PAD) model is commonly used to describe emotional states. This model serves as a connection between stimuli and the organism, as explained by Miniero et al. (2014) and Das and Varshneya (2017). Studies emphasize the influence of climatic factors in retail environments on consumers' emotional reactions (Bäckström & Johansson, 2006; Wu et al., 2014).

Consumers' perceptions of the retail atmosphere affect the time they spend in the store and their intention to revisit (Das & Varshneya, 2017). Studies conducted on the internet and mobile platforms support these findings (Lee & Kim, 2019; Sina & Wu, 2019; Roy et al., 2014; Ettis, 2017). Hoffman and Novak (1996) found that if consumers like a website, their loyalty intention to that website increases. Loyalty is often seen as an indicator of customer loyalty that can directly affect a retailer's net revenue, which enables businesses to focus on effective website design to increase loyalty (Kim et al., 2016; Lin et al., 2010).

The online atmosphere has been found to contribute positively to retail sales (Wang & Fodness, 2010; Reydet & Carsana, 2017). Research has shown that users of mobile applications spend a greater amount of time and money compared to other consumers. Additionally, the conversion rates achieved through mobile applications are three times higher than those of mobile sites (Narang & Shankar, 2019).

## **2.2. Customer Experience**

### **2.2.1. Definition of Customer Experience**

Customer experience is a concept of significant importance in the business world and has been approached from various academic perspectives. Initially defined by Holbrook and Hirschman (1982), the customer experience was described as an individual's subjective state of consciousness shaped by various symbolic meanings, pleasurable responses, and aesthetics. This definition highlights the personal and emotional dimensions of customer experience. Pine and Gilmore (1998), on the other hand, approached customer experience from a managerial perspective, defining it as a mental state that emerges when a company consciously uses its products to create an unforgettable event for customers. This definition suggests that customer experience is a process strategically shaped by businesses. Schmitt (1999) defined customer experience as a feeling based on sensory, emotional, relational, behavioral, and cognitive responses triggered by interaction with a stimulus. This definition emphasizes the multi-dimensional and interactive nature of the experience. In another definition from 2000, he described it as a company or brand perception formed through direct observation or participation in activities. This approach highlights the role of customer experience in shaping brand perceptions. These various definitions reflect the complexity and multi-faceted nature of customer experience while providing a broad perspective on understanding both individual and business-focused aspects of this concept.

In their explorations of customer experience, Gentile et al. (2007) defined it as "a personal phenomenon resulting from a series of interactions between a customer and a stimulus that elicits a response." This perspective emphasizes the individuality and personal nature of the experience derived from interaction. Shaw et al. (2010) approached it as "the interaction between the firm and the customer, perceived both consciously and unconsciously by the customer." This definition underscores the dual nature of customer perception, encompassing both the aware and unacknowledged aspects of interaction. Richardson (2010) provided a broader view, describing customer experience as "the sum of how customers interact with the firm and brand not only at a single moment but throughout the entire customer lifecycle." This highlights the ongoing and cumulative nature of customer interactions over time. Rose et al. (2012) characterized it as "a psychological construct arising from the customer's contact

with the retailer, involving a holistic and subjective response that may include different levels of customer engagement." This definition focuses on the comprehensive and personal response elicited through various forms of engagement. Kandampully et al. (2015) defined customer experience as "an expression of customers' mental states arising from their participation in the co-creation of value." This approach highlights the role of customer participation and co-creation in shaping the experience. Schmitt et al. (2015) framed it as "a psychological internal process generated by an interaction with an object, a self-produced inner process." This definition points to the internal psychological processes that result from interactions with external stimuli. These diverse definitions reflect the multifaceted nature of customer experience, ranging from personal and psychological aspects to interactions and ongoing engagement, offering a comprehensive view of how customers perceive and interact with brands and firms.

Customer experience is fundamentally holistic, encompassing the cognitive, sensory, emotional, social, and physical responses of the customer towards an object (Verhoef et al., 2009). This perspective suggests that customer experience is a "multidimensional structure based on the cognitive, emotional, behavioral, sensory, and social responses of the customer throughout the entire purchasing journey" (Lemon & Verhoef, 2016). The multidimensional interactions of customers with stimuli are facilitated through sensory arousal, bodily performance, social interaction, and exploration/learning processes (Tafesse, 2016). This view emphasizes that customer experience is not a singular or isolated event but a complex interplay of various dimensions that contribute to the overall perception and response of the customer throughout their engagement with a brand or product.

According to Schmitt (2000), customer experience has three common characteristics:

- Experiences are subjective because they are perceptions. It is therefore important to understand how a customer can be given a specific experience. The client's subjective world is more important than what seems most appropriate from a design perspective. Consequently, when it comes to the experiential rather than the functional aspects of management and design, designers and marketers need to adopt the customer's perspective.
- Experiences are the outcome of a dynamic and reciprocal interaction with the customer. Customers engage in active relationships with companies or brands, rather than simply seeing, judging, and forming impressions as passive information processors. Therefore, it is imperative for designers and marketers to promote customer engagement and urge them to take action in order to establish meaningful brand connections.
- Experiences are gradual and ongoing processes that develop over a period of time. Experiences are dynamic and subject to change as knowledge progresses. Therefore, it is imperative for

designers and marketers to comprehend the sequential arrangement and temporal presentation of information.

While economic offerings such as things, products, and services are separate from the customer, experiences are subjective and exist solely within the mind of an individual who is emotionally, physically, intellectually, and even spiritually engaged (Pine & Gilmore, 1998). The customer experience is influenced by both controllable variables, such as the service interface, store displays, and advertising, as well as uncontrollable factors, such as customer interactions and purchase intent (Stein & Ramaseshan, 2016). Customer experience, in this context, is not a secondary value, but rather a core and inherent value. It refers to how the company and brand's products and services are perceived from the customer's point of view (Nagasawa, 2008).

### **2.2.2. Components of Customer Experience**

While creating a customer experience, Schmitt (1999) stated that customers do not have a single experience and have five different experiences and tried to explain these experiences as sensory, social, cognitive, physical, and emotional experiences.

Sensory experience can be expressed as creating cognitive coherence and sensory difference with the aesthetic appeal of customers by differentiating from competing products and services by appealing to customers' sensory organs. The Sensory Experience module is designed to generate experiences that engage the five senses (sight, touch, hearing, taste, and scent). The core of this experience is the ability to establish a connection with the brand through the senses, which in turn leads to the formation of emotions associated with the brand through the associations that are established in the settled memory (Tosun and Elmasoğlu, 2015). The five senses serve as the stimuli that commence the process of perception. Perception is the cognitive process by which consumers interpret and comprehend themselves, other individuals, their surroundings, and things using their five senses. Hence, the establishment of a brand image holds significant importance in influencing purchasing or consumption behaviors. To complete the perception process, it is necessary to be exposed to information that reaches the five senses, to pay attention to this information (information can reach individuals and individuals can be exposed to information, but perception may not occur), and to interpret this information. It is important to remember that not all individuals embrace the information that is presented to the five senses in its entirety; rather, they interpret it in a manner that is unique to them (Koç, 2019). As a result, it is imperative for brands to conduct an analysis of the way in which consumers will perceive stimuli and to develop sensory marketing elements in a manner that is most effective in managing the sensory experience process. Sensory experiences are the pathway to emotions, which are among the most potent

forces that motivate consumers to make purchases. Lindstrom (2009) has established that the proper alignment of sensory inputs facilitates the perception of scent, the watering of the mouth by sound, and the stimulation of the senses of taste, touch, and sound by image. Cognitive consistency/sensory variety is one of the fundamental principles of sensory experience, which can be employed to add value to products, provide consumer motivation, and differentiate companies and products (Schmitt, 1999).

The social experience is the sum of the social, physical, emotional, and sensory experiences of customers. In social experience, brands protect customer loyalty by creating a sense of belonging to the brand as a result of the total experience they have acquired. Social experience is the term used to describe the interaction between employees and consumers in the social environment that employees have established, with customers also participating in the learning process (Yi and Gong, 2008). Store personnel are a component that contributes to the overall experience of a store. The loyalty of consumers to the store is significantly influenced by the demeanor and reliability of store personnel (Backstrom and Johansson, 2006:420). In the formation of social experience, interaction with store personnel and other group members in the social environment is effective, according to certain sources. Even in the absence of direct interaction, individuals may be sensitive to the behaviors of other group members. Brun et al. (2020:3) have identified the social environment elements that influence individuals' experiences as the presence of other individuals, communication with them, and observation of their behaviors and characteristics. In social experience, consumers aim to use similar products together with other consumers from the same social class and feel like they belong to a community that not only uses products but also shares values and ideals related to these products (Baxendale, Macdonald, & Wilson, 2015).

Cognitive experience; brands aim to solve the existing problem and create a positive perception about the brand by offering innovative solutions to customers. This type of experience is generally found in technology-based solutions. The cognitive experience process is comprised of three stages: astonishment, interest, and encouragement. The initial stage of the process, surprise, is designed to provide experiences that deviate from consumer expectations. The objective of this surprise is to pique the curiosity of customers and capture their attention, and, in the final stage of the process, to offer incentives for consumers to take action (Elibol, 2022). The fundamental objective of intellectual experience is to captivate, astound, and incite customers' interest by employing divergent and convergent thinking styles (Schmitt, 1999). Guilford (1967) made a significant contribution to the field of study by defining the concept of creativity. He argued that creativity is a more effective skill in terms of producing multiple solutions to a problem, as opposed to intellect, which is limited in its ability to find solutions to problems. He stated in this context that intellect necessitates divergent thinking, while creativity necessitates convergent thinking (Chamorro-Premuzic and Reichenbacher, 2008).

Physical experience or behavioral experience is a type of experience that aims to mobilize the customer by establishing a contact point with the customer this point takes into account the lifestyle of the customers while developing products and services by companies. Behavioral experience encompasses consumers' interactions with the brand, lifestyles, and physical experiences (Zarantonello and Schmit, 2010). This experience is designed to alter consumers' attitudes and behaviors by enhancing their physical experiences and enriching their lives over the long term (Yang, 2009). Behavioral experience is intended to analyze the lifestyles of consumers, enhance their experiences, and potentially alter or transform their lives. Customers' circumstances must be detailed and examined in order for this design to be implemented. Our body is a source of rich experience; when individuals are actively engaged with the environment, their emotions can be activated, and in a well-designed experiential environment, they can also be prompted to consider their lifestyles and what they can do (Tsaour et al., 2007). As a result, behavioral experiences can be described as a comprehensive collection of sensory, affective, intellectual, and relational experiences (Avci, 2022). The objective of behavioral experience is to link the experiences that are intended to be provided to consumers with their lifestyles and behaviors. In order to accomplish this objective, it is evident that businesses frequently employ celebrities who are adopted by consumers and possess both entertaining and knowledgeable qualities as role models. The primary objective of behavioral experience is to alter the behaviors of consumers in a manner that will be advantageous to the business in the long term (Grundey, 2008). In other words, the objective of behavioral experience is to induce lasting modifications in the lifestyles and behaviors of consumers. Consumers will be presented with alternative methods of working, and their lives will be enhanced by new social interactions and lifestyles (Dirsehan, 2010). In this scenario, consumers should be provided with more inspiring and motivating social experiences.

Being capable of appealing to the interior worlds and emotions of customers is the definition of emotional experience. In this scenario, it is imperative for businesses to evaluate the emotional as well as the tangible advantages of their products. The crucial aspect of this experience is the ability to engage with the appropriate emotions. Furthermore, emotional experience is a mental state that is typically accompanied by physical reactions, such as facial expressions or body movements and is the outcome of the cognitive assessment of events or thoughts (Cacioppo and Gardner, 1999). The term "emotional experience" denotes experiences that prioritize strong emotions, such as happiness, serenity, pride, and excitement, and that involve customers' positive attitudes toward the brand or product. The most intense emotions are experienced by customers when they interact with products. Consequently, it is crucial for businesses to incorporate elements that will evoke consumers' emotions when they interact with a product or brand. For instance, in a clothing store, a compliment from the salesperson regarding the clothing that the customer attempts on in the changing room can have a positive impact on the customer.

Furthermore, the implementation of a functional mirror that is both user-friendly and visually appealing in the changing room has the potential to enhance the customer's satisfaction and influence their final purchase behavior. The sensory dimension of the consumer experience is a critical factor in this scenario. Due to the fact that sensory experience encompasses the emotional responses that consumers experience when engaging with the product or service, and these reactions can influence brand loyalty and satisfaction. The consumer may experience either a positive or negative outcome as a result of this situation (Fornerino, Helme-Guizon, & Gotteland, 2006). Therefore, it is imperative that businesses or identities prioritize emotional experience tools.

The EQUAL scale, which was created by Klaus (2013) as a doctoral study and developed by Klaus and Maklan (2012), consists of four dimensions: inner peace, decision moment, result focus, and customer experience while creating a positive experience while serving customers.

Decision moment; It is predicted that the negative experiences of the customers that the businesses provide services to will affect the decisions they will make about the businesses during the service purchase and in the future. For this reason, businesses can be explained as the dimension of showing flexibility towards service improvement customers during service delivery.

Result focus; It is the dimension in which various researches about this product and service take place when customers decide to buy products and services. In this research, it reflects the reduction of costs, the realization of purchases at an affordable price, and the target orientation of the customer.

Product experience; It is related to the perception that customers have different options at the point of purchasing the product and service they are looking for. In this dimension, customers can make preferences and comparisons among the options, and customer loyalty and customer grouping gain importance in this dimension.

Intrinsic peace of mind; It can be defined as the dimension that includes the entire process before, during, and after the sale of products and services by the enterprises with the customer and where emotional satisfaction gains importance in addition to the rational decisions of the customer. In this experience process, the fact that businesses create a customer path and provide expert support to customers affects the emotional experience of the customer.

### **2.2.3. Customer Experience Stages**

Businesses and marketing departments have shifted their focus to customer experience as customers interact with businesses across multiple channels and media through numerous touchpoints, leading to more complex customer journeys. Customer experience encompasses the entirety of interactions a

customer has with a business throughout the entire purchasing process, including various touchpoints. It is viewed as a dynamic and continuous activity. The customer experience process includes pre-purchase (including search), purchase, and post-purchase stages, characterized by its iterative and dynamic nature. Consumer experience is typically divided into three main stages: Pre-purchase, purchase moment, and post-purchase (Lemon & Verhoef, 2016).

- **Pre-purchase:** This stage refers to all experiences a customer has with the brand, category, and environment before making a purchase. Practically, it spans from the customer's awareness of a need/goal/urge to the evaluation of addressing that need/goal/urge through a purchase.
- **Purchase moment:** This stage encompasses all interactions a customer has with the brand and its environment during the purchase process. Customer behaviors such as selection, ordering, and payment are prominent in this stage. Despite being the most intense of the three stages, marketing mix activities, the environment, atmosphere, and service elements play crucial roles in influencing the purchase decision.
- **Post-purchase:** This stage refers to the interactions a customer has with the brand and its environment after completing a purchase. It includes activities such as usage and consumption, post-purchase interactions, and service requests. Elements related to the customer's post-purchase experience are directly tied to the brand or product/service. At this stage, the product itself becomes a significant touchpoint, and research often focuses on the consumption experience.

These stages highlight that customer experience is not a single event but a comprehensive and evolving journey that spans before, during, and after the purchase, with each phase contributing uniquely to the overall customer perception and satisfaction.

#### **2.2.4. Online Customer Experiences**

The rapid expansion of e-commerce has prompted sellers to reassess their market strategies and distribution networks, leading to a restructuring of their interactions with consumers. With the transition of retail into the online environment, customer experience has acquired new dimensions (Vakulenko et al., 2019).

In recent years, both academics and practitioners in the business world have shown significant interest in online customer experience. This experience is influenced by a variety of factors, including the web environment (such as website design and website interaction), individual characteristics (such as skills and past experiences), and emotional states (such as pleasure or satisfaction). Research on online customer experience highlights that the growing prevalence and use of social media and online

commerce underscore the need for further investigation in this area. Social media platforms offer users substantial opportunities to design and control their own experiences, emphasizing the importance of in-depth research into the features of social media that either enhance or hinder a satisfying online customer experience (Hwang & Seo, 2016).

Online shoppers are exposed to a range of sensory information on a retailer's website, including text-based information, visual imagery, and video or audio content. They process and interpret this information from both cognitive and emotional perspectives, which ultimately shapes their perceptions of the retailer's website. The two fundamental components of online customer experience are cognitive and emotional elements. Gentile et al. (2007) define online customer experience as a psychological state subjectively affected by the e-retailer's website. The customer forms a lasting impression in memory based on the cognitive and emotional evaluation of the sensory information obtained from the website (Rose et al., 2012).

Industry data indicates that the rise in tablet and smartphone usage has also led to an increase in online shopping via these devices (Siwicki, 2014). A recent industry study reveals that consumers use these devices not only for shopping on the go but also from the comfort of their homes. According to the 2014 Digital Consumer Report, 80% of tablet users and 67% of smartphone users use their devices to shop while at home.

Designing smartphone applications, social media pages, websites, and mobile-optimized web pages in line with customer expectations and preferences is crucial. These devices have the potential to encourage customers to maintain virtual connections with businesses. Research by Kim et al. (2013) on mobile user interaction emphasizes the importance of considering both functional and hedonic elements in user experience design. The researchers highlight that applications with user-friendly and intuitive features enhance user value, satisfaction, and engagement.

Smartphones provide users with the ability to control the timing, location, and manner of performing specific tasks, offering the freedom to customize according to their needs. Customers perceive mobile devices as enabling them to use their time efficiently, accomplish functional tasks, indulge in hedonic pleasure, and build social connections. Therefore, it is essential for businesses to prioritize various functional components that are important to customers as a fundamental aspect of integrated design.

Novak et al. (2000) developed an online consumer navigation model that incorporates the psychological concept of "flow." Flow is described as a state of profound engagement where individuals experience intrinsic pleasure and lose awareness of themselves during uninterrupted web browsing. In this state, users become deeply absorbed in their online activities, enjoying a seamless and immersive experience that enhances their overall satisfaction. This concept underscores the importance of creating a smooth

and captivating web experience to foster a deeper connection with users and improve their online interactions (Rose et al., 2012).

Customer experience refers to the perceptions customers have regarding a purchased product. Technological advancements have made online shopping feasible, prompting companies to create mobile applications for enhanced user accessibility. Consequently, the concept of user experience has arisen with evolving shopping behaviors. Research on customer experience is crucial for comprehending the intentions of customers who have begun to favor mobile applications for purchasing and wish to persist in using them. To enhance comprehension of the interaction experiences between the application environment and users, a deeper understanding of the idea of user experience is essential.

### **2.3. User Experience**

Despite being a relatively recent addition to the literature, the concept of user experience has emerged as a prevalent topic in the realms of digital and design disciplines. Two primary elements facilitate the scholarly exploration of the topic of user experience in the literature. The first factor is the rise of mobile applications attributable to digitalization and their commercial nature, while the second is the transformation of economic and market relations into a customer-centric framework. User experience (UX) encompasses the entirety of impressions a user encounters while engaging with a product or service, together with the resultant repercussions. N&N Group, recognized as the global leader in user experience and established by computer scientist and design authority Donald Norman alongside usability expert Jakob Nielsen—who coined the term "user experience"—defines user experience as the aggregate of emotional, cognitive, and behavioral responses elicited by a user during their interaction with any product, service, or system (Nielsen and Norman, 2006).

Marc Hassenzahl, a prominent computer scientist in user experience, characterizes user experience as a predominantly evaluative emotion that arises during interaction with a product or service, highlighting its focus on the subjective aspect of product utilization (Hassenzahl, 2008). Hartson and Pyla, in their book "The Ux Book," describe user experience as "the sum of the effects felt by the user before, during, and after interaction with a product or system in the ecology" (Hartson and Pyla, 2019).

Professor Jodi Forlizzi and user experience specialist Katja Battarbee assert that "User experience encompasses the emotions, cognitions, and behaviors individuals encounter during their interactions with products." User experience encompasses the functionality and utility of products, along with their visual attributes and emotional impacts" (Forlizzi and Battarbee, 2004). Leah Buley, an American researcher and designer, defines user experience in her book "The User Experience Team of One" as "the overall effect created by the interactions and perceptions that a person has while using a product or

service" (Buley, 2013). This work is regarded as a significant resource for individuals or small teams engaged in user experience design.

The International Standards Organization defines user experience as "the user's perceptions and reactions concerning the use and/or anticipated use of a system, product, or service" (ISO, 2019). ISO (2019) defines "user experience" as the outcome of a system, product, or service's brand image, appearance, functionality, system performance, interaction behavior, and supporting capabilities. The outcome is influenced by the user's internal and physical condition, shaped by their prior experiences, attitudes, abilities, personality, and the context of use. The customer Experience Professionals Association (UXPA) defines "User experience as a methodology that incorporates direct customer feedback into the product development process.

The literature reveals that the term user experience was initially introduced by Donald Norman at a conference in the 1990s. Norman asserts that users provide feedback not only regarding the specific product but also concerning the whole interaction context of the product. This process is termed user experience (Norman, Miller, and Henderson, 1995). User experience emphasizes external interactions rather than the internal mechanics of a product or service, concentrating on aspects such as user engagement, ease of performing basic tasks, and the overall sensation of interaction with the product (Garret, 2011). User research, testing, and feedback are employed to comprehend, assess, and refine user requirements. This method emphasizes user expectations and requirements, ensuring that products and services are perceived more satisfactorily by consumers.

User experience prioritizes user demands through user-centered methodologies and ongoing enhancements to elevate user pleasure and interaction quality. "The practice of UX relies on the system's ability to discern the needs of its users" (Jeff and Josh, 2021). This method guarantees a favorable user experience by discerning their requirements and delivering solutions that satisfy these objectives. This product typically manifests as a website or an application. Every occurrence of human-object interaction is linked to user experience; nevertheless, UX professionals mostly concentrate on the dynamics between human users and computers, as well as computer-based products including websites, applications, and systems (Soegaard, 2018).

The fundamental components of user experience are termed the hedonic approach and the pragmatic approach. These methodologies exemplify the two basic elements of user experience and examine the influence of a product or service on consumers from various viewpoints (Hassenzahl et al., 2000). Throughout the years, these notions have been variously defined and have evolved into their present form. The descriptions of the hedonic and pragmatic techniques are provided here.

### **2.3.1. Hedonic Approach**

The term "hedonism" is defined as "hedonism" in the TDK dictionary ([www.tdk.gov.tr](http://www.tdk.gov.tr)). Although the TDK asserts that the term hedonism is of French origin, the concept itself originates from ancient Greek civilization. The philosopher Epicurus, who was essential in the development of the notion of hedonism, posited that the fundamental goal of life is pleasure, asserting that hedonic expressions and feelings are central to happiness (Seven, 2019). Aydın (2013) examined the physiological and psychological needs of individuals, noting that every person in society has a need for pleasure and happiness. For instance, the fundamental requirement of an extremely hungry individual is to satiate his hunger; yet, this necessity gradually evolves into a pursuit of pleasure and happiness. Human wants are addressed by either evading suffering or acquiring the satisfaction derived from pleasure (Eroğlu, 2011).

Currently, the notion of hedonic is examined across various domains. Hedonism is very influential in consumer purchase decisions. Hedonic purchasing in consuming pertains to the enjoyment derived from the goods rather than their functionality, but aesthetic perception and the value generated are still significant (Okutan et al, 2013). The notion of hedonic in product design and user experience has been utilized since the 2000s and has evolved swiftly, with numerous definitions proposed by various scholars (Diefenbach et al., 2014).

### **2.3.2. Pragmatic Approach**

Pragmatic denotes practicality, utilitarianism, and implementability. Pentina et al. (2011) characterized the pragmatic method as "demonstrating the actions involved in utilizing the interface to accomplish shopping objectives." The inclusion of tools that enhance shopping and usability, such as expedited reordering, store locators, and discount coupons, on websites augments the user's pragmatic experience. The pragmatic dimension pertains to the functionality of the online platform. If the user finds this platform user-friendly and functional, the online purchasing experience is typically favorable. The practical use of a product favorably influences the user's experience. The pragmatic dimension encompasses a whole procedure that begins with the evaluation of the product on the web platform, extending to its acquisition and utilization. Examples of this dimension are the highly functional Apple brand items and the minimally designed Apple.com website (Gentile et al., 2007).

## 2.4. Difference Between Customer and User Experience

Customer experience refers to the comprehensive process of customer interaction, which includes every stage from search to purchase, consumption, and after-sales (Lemon and Verhoef, 2016). Consumer perception refers to the subjective reactions of customers to all direct and indirect interactions with a firm, such as communication, service, and consumption (Chen and Hsieh, 2011). The customer experience encompasses cognitive, emotional, sensory, spiritual, and social aspects that reflect the client's direct and indirect engagement with other market participants. By combining this raw data with direct or indirect contacts, a comprehensive experience is formed (Jain et. Al., 2017). From this information, it can be concluded that customer experience pertains to all the processes of interaction between the consumer and the brand, beginning before the purchase and extending to the experiences after the purchase. Thus, it may be asserted that customer experience includes enduring procedures and emphasizes creating enduring relationships with customers.

User experience is the creation of a perception, the development of behavior, the provision of benefits, and the fulfillment of requirements as a result of the interaction between users and a product, service, or system (Hassenzahl et al., 2010). In a sense, this definition underscores the subjective nature of user experience and underscores its personal influence. This viewpoint implies that the interaction based on user experience will vary based on the internal characteristics of users, including their expectations, requirements, and tendencies. In general, the objective of user experience is to facilitate consumers' interactions with a particular product. User experience is a shorter-term term than customer experience and pertains to the experiences of consumers during the use of a particular service (Sutcliffe and Hart, 2017). For instance, the visual appeal, functionality, and simplicity of a mobile application are critical components of the user experience.

The customer experience scale and the user experience scale differ significantly in their focus and scope. The customer experience scale evaluates the overall quality of service provided by a company or brand, encompassing all interactions from pre-purchase to post-sale support (Lemon and Verhoef, 2016). This might include factors such as the ease of making reservations, staff attitudes, product quality, and pricing for a restaurant chain, for example. In contrast, the user experience scale hones in on interactions with a specific product or interface. It measures how users perceive the product, its ease of use, and how effectively it helps them achieve their goals (Hassenzahl and Tractinsky, 2006). For instance, when evaluating a grocery app, the user experience scale might assess the app's intuitiveness, the speed of finding and adding products to the cart, the efficiency of the checkout process, the app's performance in terms of speed and stability, and its personalization features. By focusing on these specific aspects, the user experience scale provides a more detailed and targeted analysis of how users interact with a

particular product or digital interface, whereas the customer experience scale offers a broader view of the entire service ecosystem.

Law's (2011) study about User Experience revealed that its author prioritized measuring how happy users were with the product right after they used it. This is the key distinction between the User Experience scale and the Customer Experience scale; it shows that the former is more focused on the short term.

## **2.5. Customer Satisfaction**

### **2.5.1. Definition of Customer Satisfaction**

People, institutions, or organizations that purchase products or services from businesses are called customers (Berry, 1991). A customer is not only the person who buys products from a business, but also the person or organization that meets the service needs that the business is responsible for satisfying (Kantarci, 1992). Businesses should focus on the customer. The quality of the service offered by businesses is closely related to their consideration of customer preferences. The concept of customer satisfaction is a very broad definition that includes concepts such as expectations, past experiences, and individual and social values. Food and beverage businesses have to give importance to the concept of customer satisfaction in order to compete. The quality of customer satisfaction depends on the timeliness and fulfillment of expectations. If the service is incomplete, it negatively affects customer satisfaction and the business. On the other hand, correct and quality service positively affects customer satisfaction and business image. Customers always want to receive quality service in food and beverage establishments. The value of service quality in food and beverage establishments is determined by food quality, physical environment quality, and service quality (Ryu et al., 2012).

Customer satisfaction is the post-consumption experience (Westbrook and Richard, 1991). According to Kotler (2000), customer satisfaction is defined as the feeling of pleasure or disappointment that arises as a result of an individual's comparison of the perceived performance of the service/product offered to him/her with his/her own expectations. According to Mcnealy (1994), customer satisfaction should be defined, measured, and monitored. Customer satisfaction can be measured if it can be defined, analyzed if it can be measured, controlled if it can be analyzed, and reinforced if it can be controlled. In order to increase customer satisfaction, customer expectations and wishes should be prioritized (Thirumalai and Sinha, 2005). The degree of satisfaction with a product or service depends on the customer's impressions of the product (Acuner, 2003).

For a business, customer satisfaction can create customer loyalty. Customer satisfaction creates a competitive advantage over other businesses. Therefore, businesses should be willing to understand the customer well, analyze customer demands and expectations well, and use customer complaints to improve service quality. According to Çatı and Koçoğlu (2008), in order to determine customer satisfaction and customer loyalty, customer expectations should be analyzed and products and services should be shaped accordingly. For businesses, some of the benefits of customer satisfaction are as follows;

- Customers are more willing to buy products,
- They are more willing to buy from other products,
- Since they have positive feelings towards the business, they increase the image of the business,
- It is easier for businesses to gain customer loyalty,
- Businesses gain a competitive advantage (Yalçın and Koçak, 2009).

Businesses are obliged to meet customer demands and satisfy customers in order to make a profit and sustain their existence. Customer satisfaction depends on the attitudes and behaviors of the staff, the quality of the service provided, and the image of the business (Tan, 2004). Customer behavior and good management of customer relations are also very important in customer satisfaction. Therefore, businesses should conduct research according to customer expectations. Customer satisfaction is measured by the customer's evaluation of the product and service purchased according to their expectations. A satisfied customer is a customer acquired for the business. If the customer's expectations are not met after the service, improvement studies should be carried out by taking into account their complaints. Zeithaml et al. (2003) defined customer expectation as the belief in the service and customer expectations are personal and changeable. If customer expectations are met, customer satisfaction is realized.

Some important points that businesses should pay attention to in ensuring customer satisfaction are as follows;

- Listening to customers' requests and complaints very well,
- Providing services above customer expectations,
- The attitude towards the customer is always sincere and courteous,
- Empathizing with the customer,
- Making the customer feel special.

## 2.5.2. Importance of Customer Satisfaction

- **Customer Satisfaction as a Driver of Loyalty and Advocacy**

Positive thoughts and feelings that arise after the purchase of goods and services form the foundation of customer satisfaction. Satisfied customers not only continue to purchase products and services but also share their positive experiences with others. This word-of-mouth advertising is a powerful tool for businesses seeking to enhance their economic gains and attract a broader customer base. Therefore, prioritizing customer satisfaction is crucial for businesses aiming to achieve these objectives.

- **Understanding Customer Needs and Expectations**

To effectively enhance customer satisfaction, businesses must first understand what their customers truly want. Identifying and accurately assessing customers' needs and expectations allows businesses to tailor their products and services accordingly. When businesses align their offerings with customer expectations, they not only meet but often exceed customer desires, leading to greater satisfaction. This alignment is essential for fostering both customer loyalty and satisfaction.

- **The Impact of Meeting Customer Expectations**

When businesses succeed in addressing and fulfilling customer needs, several positive outcomes ensue:

1. **Increased Customer Loyalty:** Customers who find that a business consistently meets or exceeds their expectations are more likely to remain loyal. This loyalty translates into repeat purchases, which are crucial for long-term business success.
2. **Enhanced Word-of-Mouth Promotion:** Satisfied customers are inclined to share their positive experiences with others. This organic form of advertising can be highly effective, as recommendations from friends and family are often more persuasive than traditional marketing efforts.
3. **Improved Competitive Advantage:** Businesses that prioritize and effectively address customer needs are better positioned to differentiate themselves from competitors. This differentiation can be a key factor in attracting new customers and retaining existing ones.
4. **Increased Business Profitability:** Customer satisfaction directly impacts a company's bottom line. Satisfied customers are more likely to make repeat purchases and may also be willing to pay a premium for products and services that meet their expectations. Additionally, positive word-of-mouth can lead to new customer acquisition, further enhancing profitability.

- **Strategies for Enhancing Customer Satisfaction**

To achieve and maintain high levels of customer satisfaction, businesses should implement the following strategies:

1. **Regularly Gather Customer Feedback:** Utilize surveys, interviews, and other methods to collect feedback from customers. This information provides valuable insights into customer preferences and areas for improvement.
2. **Continuously Monitor and Improve:** Regularly assess business practices and product offerings to ensure they align with customer expectations. Implement improvements based on feedback and emerging trends to stay relevant and competitive.
3. **Provide Exceptional Customer Service:** Train employees to deliver outstanding customer service, addressing issues promptly and effectively. A positive customer service experience can significantly impact overall satisfaction.
4. **Personalize Customer Interactions:** Tailor interactions and offerings to individual customer preferences. Personalization enhances the customer experience and demonstrates a business's commitment to meeting their needs.
5. **Build Strong Customer Relationships:** Engage with customers through various channels to build lasting relationships. This engagement fosters loyalty and creates opportunities for businesses to understand and address evolving customer needs.

Customer loyalty emerges when the customer is satisfied. A customer who is loyal to the brand is a satisfied customer. Satisfied customers increase the purchase of more products. The customer has positive feelings towards the product and the business and contributes to the image of the business (Çatı & Koçoğlu, 2008). Businesses with customer satisfaction compete more easily with rival companies. It is much easier to ensure that a consumer whose requests for a product or service have been met by the business buys products and services again than it is for other people to buy products and services from the business (Çiçek & Doğan, 2009).

Satisfied consumers contribute to the business as follows (Çatı & Koçoğlu, 2008):

- They buy more products from the business,
- Customers are loyal to the business,
- They can also buy other products produced by the business,
- Customers become less interested in competitors' brands and products,
- Since customers feel positive feelings towards the business and the products produced by the business, it is beneficial for the business to have a positive image.

For customer satisfaction, businesses must meet the demands and expectations of consumers in the best way. In other words, the business needs to be customer-centered. Being customer-centered and ensuring customer satisfaction is very important for the business to survive and stay ahead of its competitors (Bayraktar, 2014).

### **2.5.3. Factors Affecting Customer Satisfaction**

It is important that the factors affecting customer satisfaction are perceived correctly by businesses and that they act accordingly (Emir, 2016). Today, it is quite normal for a person to be an employee in one business and a customer in another business (Kılıçhan, 2012). Businesses have found a way out of the "employee and customer" dilemma by expanding this concept to internal and external customers. Therefore, the concept of the customer can be classified as internal customer and external customer (Günaydın, 2014).

The concept of internal customer consists of the employees of an enterprise. In other words, internal customer is a concept that refers to the employees working in the organization (Gök, 2010). The concept of external customers is the people who buy the products and services offered by an enterprise. In other words, the business offers products and services not to meet its own wishes, expectations, and needs, but for people who engage in purchasing activities (Doğan & Kılıç, 2008).

The main purpose of ensuring internal customer satisfaction in businesses is to ensure that the internal customer is satisfied and that the work progresses in a more planned manner and contributes to the reduction of errors. This situation also allows the profit of the business to increase and therefore the service costs to decrease with the customer being more satisfied (Özgüven, 2007).

Ensuring internal customer satisfaction is an issue that needs to be given a lot of attention due to the general structure of services in service-providing enterprises, such as the consumption of the services offered at the time and place of production, the inability to stock, being an intangible element and the participation of employees in production. For this reason, it is important to measure and evaluate the degree of continuous satisfaction of employees and to take the necessary measures (Hacıoğlu, 2000). In addition to the products and services, the approach of the business personnel who offer them to the customers, especially their communication with the customers, their understanding of the expectations and preferences of the customers, and their approach to them in that way are perceived as quality by the customers (Kitapçı, 2006).

Factors affecting customer satisfaction are classified into 5 main groups (Cengiz, 2013). These are explained as follows: product quality, price, performance, expectations, and reliability:

- **Quality of the product:** The product is the most important factor affecting customer satisfaction. Because all issues related to production (product variety, product aesthetics, etc.) come to the forefront when meeting the needs and expectations of customers. Consideration of customer wants, needs, and expectations at every stage of the product production process helps to increase customer loyalty and trust in the business. Because customers are also interested in the standardization of the product quality they receive in line with their expectations. In addition, it is also important for the enterprise to offer the same quality of the products it produces in order to ensure customer satisfaction and loyalty to the enterprise (Gençtürk et al., 2011).
- **Price:** Price, which is another factor affecting customer satisfaction, is a factor that attracts attention by businesses in ensuring customer satisfaction and loyalty. Consumers generally want to buy a good service at a reasonable price. Apart from this, even if they do not visit another business other than the one they frequently visit, they want to evaluate the affordable options that they rarely come across. Therefore, businesses need to retain their customers with the right pricing strategies (Gülçubuk, 2008).
- **Performance:** Customer satisfaction can also be expressed as the relationship between perceived quality and expectations. In other words, there are three situations for a customer depending on satisfaction. First, if the quality perceived by a customer is lower than the performance expected, customer dissatisfaction; if the performance expectation is equal to the perceived quality, customer satisfaction; and finally, if the perceived service is higher than the performance expectation, in addition to customer satisfaction, the customer feels pleasure from this experience (Baytekin, 2005).
- **Expectations:** The concept of customer satisfaction is directly related to and interdependent with customer expectations. This is because customer satisfaction is achieved by meeting customer expectations (Bulgan & Soybalı, 2011). Customer expectations are formed by the experiences/accumulations gained by customers before. Therefore, a customer is likely to have low expectations after a negative experience and high expectations after a positive experience. Expectations vary from person to person. In this case, it is not possible for a service that satisfies one customer to satisfy another customer. However, businesses should still attach importance to determining customer expectations. Because even though customer expectations are different from each other, businesses need to respond to these expectations in order to ensure customer satisfaction (Burucuoğlu, 2011).
- **Reliability:** Reliability, which is another factor affecting customer satisfaction, is expressed as the delivery of a service to the consumer honestly and within the framework of ethical values in businesses (Onurlubaş & Öztürk, 2020). In addition, reliability includes the ability of

businesses to provide their services of the desired quality within the specified time frame and as promised (Şahin & Şen, 2017). For this reason, businesses need to give importance to the concept of trust like other factors necessary to create customer satisfaction. Because food and beverage businesses, which are in an intensely competitive environment, need to acquire potential customers while retaining their existing customers. For this reason, it is effective for these businesses to give confidence to their customers and for customers to be satisfied (Cengiz, 2013).

#### **2.5.4. Online Customer Satisfaction**

- **The Importance of Customer Satisfaction in Competitive Strength**

Bitner and Hubbert (1994) assert that both theoretically and empirically, customer satisfaction is the key to a business's competitive strength and is considered the essence of success in the modern, highly competitive business world. Customer satisfaction emerges as a fundamental factor determining the success and competitive advantage of businesses. Satisfied customers are more likely to make repeat purchases and enhance the business's reputation through positive word-of-mouth. In this context, customer satisfaction is not just a customer relationship management strategy but a core component of a business's competitive success.

- **E-Satisfaction and Early Academic Research**

The first academic research on the concept of electronic satisfaction was conducted by Szymanski and Hise (2000). This research laid an important foundation for understanding how customer satisfaction should be measured in the digital environment, with the rise of online shopping. Szymanski and Hise's work represents a significant turning point in understanding online customer satisfaction and taking initial steps to adapt to the evolving dynamics of online shopping.

- **Online Customer Satisfaction and E-Satisfaction**

According to Anderson and Srinivasan (2003), online customer satisfaction is the degree of satisfaction a customer perceives based on their previous purchase experience with a specific e-commerce firm. This definition highlights that e-satisfaction reflects the customer's experience and emphasizes how customer satisfaction is shaped in the online environment. E-satisfaction is defined as an emotional state where a customer compares the services offered by the business with their own expectations (Cui et al., 2017). This perspective represents a critical approach to understanding how online satisfaction affects customer experiences and perceptions.

- **The Role of E-Satisfaction in the B2C Market**

Customer satisfaction is considered a crucial component in determining the success of online shopping, particularly in the B2C (Business-to-Consumer) market. Ting and others (2016) highlight the importance of e-satisfaction for online retailers to maintain profitability and establish long-term customer relationships. E-satisfaction not only improves customer experience but also enhances the profitability of the business, ensuring sustainable success in a competitive market. In this context, online customer satisfaction is a critical factor directly affecting the success of e-commerce firms.

In addition to physical product purchases made electronically, service purchases made electronically are becoming increasingly common. Therefore, the concept of satisfaction in the electronic environment is becoming increasingly important in the marketing literature. The transfer of many services from the traditional environment to the electronic environment as a result of technological developments has necessitated the redefinition of customer satisfaction (Bayram & Şahbaz, 2016).

Customers are the lifeline of online stores because customer satisfaction determines the profitability and market share of such businesses. With the intense competition in the e-commerce environment, increasing customer e-satisfaction has become a major concern for online stores (Cui et al., 2017). Customer satisfaction is a prerequisite for e-retailers to retain their customers and create loyal customers. Therefore, ensuring customer satisfaction is also important for e-retailers. Studies support the claims that customer satisfaction can be achieved by increasing the quality of electronic service. In most of the studies, it is stated that e-service quality is the basis of e-customer satisfaction (İlter, 2009).

In electronic retailing, customer satisfaction typically leads to several positive outcomes, including increased customer loyalty, favorable word-of-mouth communication, and profit growth. Zeithaml (2000) emphasizes this by highlighting that customer satisfaction is a cornerstone of success in the electronic retail sector. However, Bhattacharjee (2001) argues that achieving customer satisfaction in the B2C e-commerce context is more challenging than in traditional retailing. This difficulty arises because customers are becoming increasingly demanding, have access to the information needed to make their own decisions, and expect their non-purchase needs to be met instantaneously, perfectly, and for free. In this context, it is crucial for electronic retailers to deeply understand customer requirements and identify the factors affecting customer satisfaction in the B2C e-commerce context. Jeong et al. (2003) underscore that customer satisfaction plays a critical role in the long-term success of electronic retailers. In B2C e-commerce research, the concept of e-satisfaction has been defined and operationalized as a measure of satisfaction with electronic shopping. Studies by Lin (2007) have shown that consumer perceptions of convenience, product variety (product offerings and information), website

design, and financial security are significant predictors of e-satisfaction. These findings can help electronic retailers determine which areas to focus on to enhance customer satisfaction.

It has become important to determine performance criteria to ensure customer satisfaction in electronic shopping. The fact that traditional and electronic shopping involves different consumption experiences reveals the need for different valuations. Shankar et al. (2003) state that satisfaction with the service provided by the business in the electronic environment has a higher impact on customers than satisfaction in the traditional environment, as websites contain more extensive and detailed information.

The issue of customer relationship management has gained much more importance with the emergence of electronic sales activities (Taşkın, 2009). The customer relationship management factor, which is defined as a general expression of after-sales support, quick response to questions, and communication elements, is among the important variables affecting ethos.

The quality of web page design plays a pivotal role in influencing perceived service quality, e-satisfaction, and overall effectiveness of information systems. Research has consistently highlighted that elements such as ease of use, interface speed, and organization are critical for enhancing e-satisfaction (Szymanski & Hise, 2000). McKinney (2004) further suggests that aesthetic aspects of a website—such as color schemes, graphics, layout, and design—are instrumental in fostering enjoyment and promoting both purchasing behavior and overall satisfaction. Additionally, the depth of product information available on a site significantly impacts customers' perceptions of shopping convenience, with more detailed information leading to higher levels of satisfaction (Jiang & Rosenbloom, 2005; Peterson et al., 1997). Furthermore, Kim et al. (2008) argue that website security, encompassing financial protection and privacy, is an essential factor beyond traditional structures. The perceived risk associated with online transactions—encompassing potential issues with products, financial transactions, or personal information—also plays a crucial role in shaping customer perceptions and behaviors (Altunışık et al., 2010).

Other variables that affect customer satisfaction in shopping with e-retailers are;

- Customization: Tailoring products according to customers' preferences,
- Ease of Payment: The payment process is simple and the transaction can be completed quickly,
- Fulfillment: An e-retailer's ability to deliver the right product at the right place, at the right time, at the right price, with the right information,
- Ease of return: Having an easy return policy and automatic refunds (Pham and Ahammad, 2017).

Customer satisfaction resulting from customers' electronic shopping experiences is a critical factor for building customer loyalty. Customer loyalty affects behavioral actions such as repurchase intention, word-of-mouth communication, and willingness to pay more (Pham and Ahammad, 2017).

## **2.6. Continuance Intention**

### **2.6.1. Definition of Continuance Intention**

Comprehending users' continuance intention is essential for fostering long-term commitment in all facets of technological advancement. It serves as a dependable indicator of future behaviors, signifying the likelihood of individuals continuing to engage with a product or service. The Expectation Confirmation Theory (ECT), established by Oliver in 1980, is extensively utilized to examine post-purchase intentions. This theory's predictive capacity has been validated in multiple settings concerning continuation (Oliver, 1993). Expanding on ECT, Bhattacharjee (2001) introduced the Expectation Confirmation Model (ECM), a pivotal framework for research on continuance intention, defining it as "an individual's intention to continue using an information system" (Bhattacharjee, 2001).

The concept of information technology continuance was developed by the three disciplines of information technology, marketing, and service industry, which combined continuity intention (Nabavi et al., 2016). Continuance intention is the desire of consumers to continue using location-based mobile taxi-hailing applications (Bhattacharjee, 2001). According to Lin et al. (2014), continuance intention is "a mental state that reflects an individual's decision to replicate their current behavior and can be likened to the intention to repurchase in marketing."

According to Zhou (2011), users who utilize mobile services for the first time are referred to as "initial adoption users," while those who continue to use them on a regular basis are referred to as "post-adoption users." Consequently, initial adoption is a process by which mobile app companies acquire users, and potential users can be converted into actual users. Conversely, customer retention is demonstrated by post-acceptance. The life cycle of prospective consumers is determined by their continued use, and by quantifying it, we can comprehend the advantages of mobile applications for users (Shaw et al., 2018). The term "continuance intention" denotes the decision that mobile app users must make regarding the continuation of their use of an existing mobile application (Nabavi et al., 2016).

Thong and colleagues (2006) conducted a study examining the continuing intention of mobile internet service users. This study extends the Expectation-Confirmation Model (ECM) by incorporating reported ease of use and perceived enjoyment with satisfaction, perceived usefulness, and confirmation. The researchers discovered that satisfaction, perceived utility, perceived ease of use, and reported enjoyment

strongly influence consumers' desire to persist in utilizing IT. Furthermore, the researchers discovered that the degree of confirmation and post-adoption beliefs influences user happiness (Thong et al., 2006), Consistent with the findings of Thong et al. (2006), perceived ease of use positively influenced users' continuing intention in the study of Ashfaq et al. (2020). The researchers conducted a study to examine users' intention to continue using AI chatbots. The researchers suggested a framework that integrates the ECM, IS Success Model, and TAM. The findings indicated that Information Quality and Service Quality aspects strongly influence customer happiness. This finding aligns with the principal research of the IS Success Model established by DeLone and McLean (1992). Moreover, satisfaction was determined to significantly influence consumers' intention to continue utilizing AI chatbots. Users exhibit increased pleasure and a greater willingness to persist in utilizing AI chatbots when they regard them as pleasant and beneficial (Ashfaq et al., 2020).

## **2.6.2. Factors Affecting Continuance Intention**

Customers' plans to stick with a service or product are now more important than ever in today's fast-paced digital landscape. In many fields, this idea—which is called "continuance intention" in the literature—is considered crucial to retaining customers and achieving success over the long run. Businesses may enhance customer experience, offer better products and services, and gain a competitive edge by understanding the elements that drive continuance intention. In this context, the factors affecting continuance intention are explained below.

### **2.6.2.1. Perceived Usefulness**

Perceived usefulness is the user's subjective evaluation of the utility they derive from a new technology (Gefen et al., 2003). The utility of mobile application usage is determined by its perceived usefulness (Limayem and Cheung, 2011). Users are inclined to utilize mobile applications that are both user-friendly and beneficial (Gefen et al., 2003). Davis (1989) and Bhattacharjee (2001) also refer to it as perceived utility in the literature. Venkatesh et al. (2003) refer to it as effort expectancy. According to Bhattacharjee and Lin (2015), users' continuance intention is significantly influenced by perceived usefulness, as mobile users are inclined to continue using mobile applications that offer them utility. Applications that fail to engage users and remain unutilized on smartphones forfeit the opportunity to engage high-value users. Ultimately, these applications are eliminated (Criteo Report). Naidoo and Leonard (2007) discovered that the perceived utility of the user can predict continuance intention. According to Jin et al. (2007), the continuance intention is positively influenced by information applicability.

Lu et al. (2017) conducted a study on the factors that influence the continuance intention of mobile shoppers. Their findings indicated that perceived utility has a positive impact on the user's continuance intention. In their study, Han et al. (2018) discovered that the perceived utility of users can predict their satisfaction with the service. Additionally, when the user is satisfied with the service, it has a positive impact on their continuance intention. Naidoo and Leonard (2007) conducted a study on the relationships between perceived usefulness, loyalty incentives, and service quality in the context of electronic service continuance. Their findings indicated that perceived usefulness is the most significant factor influencing continuance intention, while service quality and loyalty incentives also affect users' perceived usefulness.

### **2.6.2.2. Facilitating Conditions**

The ubiquity of tablets and smartphones has made it simpler to hail a taxi, thanks to the advancements in mobile technologies. However, in order to utilize location-based mobile taxi-hailing applications, passengers must possess a suitable device that can connect to the internet. Facilitating conditions are the user's conviction that the vehicle-hailing system can be utilized by the mobile application company due to its organizational infrastructure and technical framework (Venkatesh et al., 2003). Venkatesh et al. (2012) believe that facilitating conditions are a critical factor that influences the user's perceived control. Consequently, users who have superior facilitating conditions have a higher intention to use a mobile application. Bhattacharjee (2008) discovered that the continuance behavior of information technology is influenced by facilitating conditions.

### **2.6.2.3. Social Influence**

Social influence is defined by Venkatesh et al. (2012) as "consumers' perception of significant individuals, such as family and friends, who believe they should utilize a specific technology." Social influence is also referred to as the "subjective norm" in the literature. Fishbein and Ajzen (1975) define social influence as "the individual's belief that the majority of individuals who are significant to him believe that he should or should not engage in the behavior in question." Social influence was the most significant predictor of continuance behavior in the study conducted by Zhou and Liu (2014). Consistent with Fishbein and Ajzen's (1975) theory of reasoned action, users' intentions to engage in specific behaviors are influenced by subjective norms. The intention of a user to continue using a mobile application is influenced by two factors: personal interests and social influence (De Guinea and Markus, 2009).

Martins et al. (2014) demonstrated that the intention of users to utilize online banking is influenced by

social influence. Lu et al. (2017) conducted a study on the antecedents of mobile purchasing continuance intention and discovered that social influence has an impact on continuance intention. Sumaedi et al. (2016) conducted a study to elucidate the reasons behind the intention of public transport commuters in Indonesia to continue using the app. Their findings indicated that the continuance intention of passengers is influenced by their attitude toward the mobile app, social influence, and brand image. In their research, Peng et al. (2018) discovered that social influence cannot be used to predict continuance intention. Peng et al. (2014) discovered that the adoption of mobile taxi applications in China is positively influenced by social influence and negatively influenced by perceived risk as a factor in users' behavioral intentions.

#### **2.6.2.4. Effort Expectancy**

In the literature, it is referred to as perceived ease of use by Davis (1989), effort expectancy by Venkatesh et al. (2003), and Venkatesh et al. (2012). Davis (1989) examined the impact of effort expectancy on information technology adoption within a professional setting. Humbani and Wiese (2019) assert that the persistence of technology stems from an individual's recognition that few resources are required to acquire a new mobile technology and the perception of its use. When users see the system as user-friendly, they are more likely to experience greater happiness. A favorable correlation exists between effort expectancy and satisfaction. This methodology is corroborated by numerous research in the literature. Martins et al. (2014) determined that a user's intention to adopt online banking can be anticipated by effort expectation. Kang (2014) discovered that effort expectancy positively affects users' intention to continue usage. Lu et al. (2017) conducted a study on the antecedents of mobile shopping continuation intention and discovered that consumers' sense of effort expectancy positively influences continuance intention.

### **2.7. S-O-R Model**

The cornerstones of the Stimulus-Organism-Response (S-O-R) theory are based on the approach-avoidance model developed by Mehrabian and Russel in 1974. In "An Approach to Environmental Psychology", these researchers analyze how environmental stimuli affect individuals' emotional responses and how behaviors are triggered as a result of this interaction. In the study, any emotional state of an individual can be classified under a basic matrix of emotional responses called pleasure, arousal, and dominance.

### 2.7.1. Concept and History of S-O-R Model

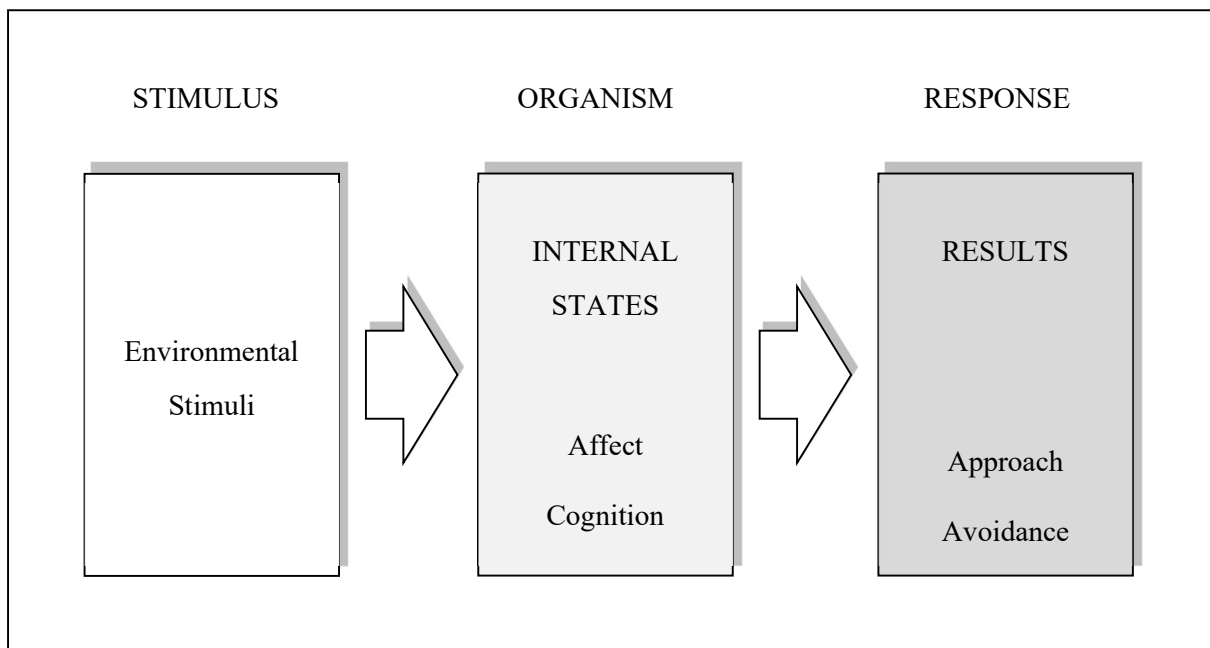
Although not much thought is given to how the physical environment affects experiences, behaviors, and lifestyle, the various layouts and designs that surround daily life have an important role in mind, emotions, and behaviors. There is an interaction between the physical environment and human experiences and behaviors (Gürkaynak, 1988).

The research on the relationship between environment and behavior dates back to the Russian psychologist Pavlov (1890-1900) with his famous dog experiments and the American psychologist Skinner (1935) who introduced the famous operant conditioning (rat experiment) theory. As can be seen, these studies put forward theories based on the findings of some experiments on animals. The study of human interaction with the environment started in the 1960s under the name of environmental psychology.

The models of consumer behavior used in research in the field of environmental psychology and consumer behavior to date, with some exceptions, are based on similar theories that are considered within the scope of action-response, consisting of input and output and modeled as Input+Output (I+O). However, these theories have been criticized for ignoring the mental states of individuals (Zhang & Benyoucef, 2016). In social sciences, especially in the field of psychology and marketing, the need for a model that addresses the internal processes of the consumer rather than a whole consisting only of input and output has emerged. As a result of this situation, contemporary models such as the S-O-R paradigm, which is a more advanced and sophisticated version of the I+O model, have started to emerge and be used. Unlike the previous I+O models, these contemporary models focus on internal, cognitive organism (O) factors rather than input or output factors and try to explain this aspect of the process (Jacoby, 2002).

Mehrabian and Russell (1974) were the first to revise the model mentioned under this approach in the literature by adding the mental process of the individual. The environmental psychology model also called the Mehrabian-Russell (M-R) model or the Pleasure-Arousal-Dominance (PAD) model in the literature, which was developed on the idea that environmental elements affect the mood and perceptions of the individual, formed the basis of the S-O-R paradigm. In the model, the inputs considered in the previous models are considered as environmental stimuli, the outputs are considered as the reactions of the consumer, and the organism is seen as a structure consisting of the cognitive and emotional state of the consumer, which is affected by these inputs and causes various outputs.

The S-O-R paradigm is a theoretical model based on environmental psychology that is frequently used to explain the effect of store atmosphere on consumer behavior. According to this paradigm, the stimulus (S) affects individuals' cognitive evaluations (O), which results in approach or avoidance behaviors (R). In other words, individuals are positively or negatively stimulated by external stimuli in their environment and show approach or avoidance behaviors following the mental process that occurs as a result of this effect (Floh & Madlberger, 2013). An example is shown in Figure 2, where stimulus (S) represents environmental stimuli, organism (O) represents mental or emotional processes, and response (R) represents reactions and consumer decisions.



**Figure 1.** Example of the S-O-R paradigm

**Source:** Mehrabian & Russell (1974)

The S-O-R paradigm, which was initially accepted as a theory of psychology, has become popular in the field of consumer behavior, which is rooted in psychology (Wu & Li, 2018). After Kotler (1974), who explained the concept of store atmosphere for the first time, this concept began to be the focus of researchers and its impact on consumer behavior began to be investigated. In this direction, the S-O-R paradigm was first used in the field of retailing by Donovan and Rossiter (1982) in a field study examining the impact of store atmosphere. This model, which is considered in the field of physical retailing, has been frequently used to reveal the effect of physical store atmosphere on traditional consumer buying behaviors (Budiman & Dananjoyo, 2021; Thirumalazhagan & Nithya, 2020; Chang et al., 2011; Dailey, 2004; Turley & Milliman, 2000).

As a result of the great development and rapid growth of online retailing, researchers focusing on online consumer behavior have sought a more systematic theory to make sense of virtual store characteristics and consumers' cognitive and emotional processes and consequently their behaviors, and have started to focus on the S-O-R paradigm (Kim & Lennon, 2013; Sakellariou, 2016). Eroğlu et al. (2001) modeled the classical S-O-R paradigm in terms of online consumer behavior within the scope of virtual retailing. In the study, it was found that the elements of the virtual store atmosphere affect the emotional and cognitive state of the consumer, which in turn directs their behavior. In subsequent studies (Roux and Maree, 2021; Nam et al., 2020; Barros et al., 2019; Chen et al., 2017; Huang, 2006; Lorenzo-Romero et al., 2011; Wang et al., 2010; Manganari et al., 2009), the S-O-R paradigm has become a frequently used and accepted model in the literature to explain the relationship between virtual store atmosphere and consumer behavior. In the related literature, the findings obtained within the framework of the S-O-R paradigm show that the store atmosphere has a structure that affects both the emotional and cognitive states (interest, attitude, flow, etc.) and behavioral responses (purchase intention, impulsive buying, repurchase, etc.) of consumers (Amara, 2016).

### **2.7.2. S-O-R Model in Marketing**

In the SOR (Stimulus-Organism-Response) model by Mehrabian and Russell (1974), a stimulus is defined as an effect that activates an individual, and in online retailing, a stimulus is defined as the sum of all the cues that the online shopper can see and hear (Eroglu et al., 2001). In the SOR model, the environmental stimulus causes the organism to react emotionally and thus a behavioral response emerges (Zhu et al., 2020). The original SOR model focuses on pleasure, dominance, and arousal and mediates the relationship between the stimulus and the behavioral responses of organisms by representing emotional or cognitive states and processes (Chang et al., 2011). The response represents consumers' final outcomes and decisions, which can be approach or avoidance behaviors. In the marketing context (Li et al., 2011), SOR-based research has been conducted and confirmed the relationship between emotional responses and consumer reactions in terms of purchase, intention, and feedback. In the literature, studies based on the SOR model to make sense of consumers' interactions and communication with online platforms and retail stores (Manganari et al., 2009; Kim and Lenon, 2013; Chen and Yao, 2018) aimed to obtain meaningful results by examining consumer behavior on online platforms, consumer trust, purchase intentions on online platforms, emotions and behaviors towards retailers and the atmospheres that affect these behaviors.

With the rapid growth of online shopping, the SOR (Stimulus-Organism-Response) model has become a foundational framework for understanding impulsive purchasing behaviors online. This model is widely applied to explore how various features of online shopping sites influence consumer behavior.

Eroglu et al. (2001) were among the first to apply environmental psychology to online shopping behavior, demonstrating that environmental stimuli and the atmosphere of online stores significantly impact shoppers' emotional and cognitive states. These effects can directly influence consumer decision-making and play a crucial role in the purchasing process. Manganari et al. (2009) found that consumers' perceptions of online stores' quality triggered emotional responses that in turn affected their behavior. This finding highlights how crucial the design and user experience of online stores are in shaping consumer actions. Research by Jones et al. (2003) and Kim and Lennon (2013) has shown that manipulating specific environmental factors or scenarios can more effectively predict consumers' impulsive purchasing behaviors. These studies underscore the importance of environmental elements and their manipulation in determining consumer behavior. Huang (2016) integrated the SOR model with social capital and flow theory to investigate impulsive buying in social commerce. This research revealed that peer opinions can significantly influence and trigger consumers' impulsive desires. The role of social interactions and the social environment in online shopping is a key factor in understanding consumer behavior. Verhagen et al. (2011) discovered that consumers' beliefs about functional importance (e.g., product attractiveness, ease of use) and hedonic pleasure (e.g., enjoyment, website communication style) affect their emotions and, consequently, impulsive buying behavior, based on cognitive emotion theory. Additionally, Kim and Hong (2011) found that hedonistic shopping motivation, based on the technology acceptance model, influences information search and impulsive buying intentions. These studies collectively offer a comprehensive perspective on how the design and functionality of online shopping sites affect consumer behavior. In particular, the impact of environmental factors, social interactions, and individual motivations on impulsive purchasing behavior plays a critical role in optimizing online shopping experiences. Parboteeah et al. (2009) conducted the first comprehensive study using the SOR (Stimulus-Organism-Response) model to explore the phenomenon of online impulsive buying. Their research marked a significant advancement in understanding how various stimuli in the online environment influence consumer behavior. Lin and Lo (2016) examined how website navigability affects consumers' impulsive buying behavior. Their study found that ease of navigation on a website significantly impacts consumers' emotional responses, satisfaction, and arousal. This, in turn, positively influences subsequent impulsive purchasing decisions. They demonstrated that a well-designed navigation experience can enhance the likelihood of impulsive purchases. However, online retailers can only manipulate consumers' visual perception through website design. Therefore, online impulsive buying behaviors are closely tied to the visual hedonic components of websites, such as navigation flows, colors, images, or fonts (Madhavaram & Laverie, 2004). These elements are crucial in shaping consumers' impulsive buying tendencies through their visual appeal. Lin and Lin (2013) investigated the effects of positive emotions and impulsive buying tendencies on

impulsive buying hesitation. Their findings indicated that as time pressure on consumers decreases, the impact of positive emotions becomes more pronounced. They also found that these positive emotions and impulsive buying tendencies have a direct effect on reducing consumers' hesitation in making impulsive purchases. These studies collectively highlight the importance of both the functional and emotional aspects of online retail environments in influencing impulsive buying behaviors. Effective website design that considers both navigability and visual appeal can significantly enhance consumers' impulsive purchasing experiences.

Marketing stimuli serve as strategic signals that influence consumer purchasing decisions (Youn & Faber, 2000). Situational cues, encompassing social and environmental factors tied to specific consumption events, play a crucial role in shaping consumer reactions and can either amplify or mitigate ongoing purchase tendencies (Dholakia, 2000; Chan et al., 2017). Cognitive responses arise when consumers engage with these stimuli, particularly when they recognize potential constraints in the online shopping context (Parboteeah et al., 2009). Meanwhile, emotional responses are triggered when consumers interact with their surroundings, with positive emotions such as arousal and pleasure often leading to heightened impulsive buying behaviors (Chan et al., 2017; Shen & Khalifa, 2012). Ultimately, the consumer's response—defined as their reaction to these stimuli and the subsequent internal processes—demonstrates how situational cues, cognitive awareness, and emotional experiences converge to drive impulsive purchasing decisions.

## **2.8. Hypotheses Development**

The mobile app atmosphere is an important factor that directly affects customer satisfaction (Lee and Kim, 2019). The atmosphere of a mobile grocery application encompasses various elements, such as the design, layout, color scheme, and overall user interface. These elements play a crucial role in shaping customers' perceptions and experiences while using the application. When customers find the application atmosphere to be user-friendly, visually appealing, and efficient, they are more likely to feel satisfied with their overall shopping processing (Huang, 2006; Wang et al., 2010). A well-designed and intuitive application atmosphere enhances the ease of navigation, reduces cognitive effort, and enables customers to find desired products quickly. This seamless and enjoyable activity leads to increased customer satisfaction. Moreover, a visually appealing and aesthetically pleasing application atmosphere can evoke positive emotions and create a sense of pleasure while shopping (Vrechopoulos, 2010). Customers are more likely to enjoy the shopping process when the application atmosphere is visually engaging. The use of attractive images, appropriate color combinations, and consistent branding elements can contribute to a satisfying and memorable shopping experience. Furthermore, an efficient application atmosphere that enables smooth and fast transactions, provides relevant product information,

and offers personalized recommendations can greatly enhance customer satisfaction (Wu et al., 2014). The atmosphere of the mobile market application also has a significant impact on the user experience. User experience consists of two basic dimensions: hedonic and pragmatic (Hassenzahl, 2003). The impact of the application atmosphere on the hedonic user experience is related to visual appeal, aesthetic design, and emotional satisfaction. With a catching interface, harmonious color distribution, and appealing visuals the application instills positive feelings in the application's users. It is these positive feelings that make the shopping experience more pleasurable and the willingness of the users to reuse the application more (Childers et al., 2001). In terms of pragmatic user experience, the application atmosphere has an impact on usability, efficiency, and functionality. A well-organized navigation structure, fast-loading pages, and easy-to-understand product information help users complete shopping tasks effectively. This experience makes users perceive the application more useful and valuable (Venkatesh and Davis, 2000). In other words, it can be said that the atmosphere of a mobile application in the market positively and significantly influences customer satisfaction and user experience. Certainly, an easily reachable, well-looking, and effective atmosphere of the application allows easy and pleasant shopping, which corresponds to a high level of customer satisfaction. It also improves the user experience in both hedonic and pragmatic dimensions (Vrechopoulos, 2010; Wu et al., 2014). By creating an atmosphere that appeals to customers' needs, preferences, and expectations, mobile grocery applications can foster a satisfying, memorable, and effective shopping experience, ultimately increasing both customer satisfaction and a positive user experience.

***H1*** *Mobile Grocery Application Atmosphere has a positive and significant effect on Customer Satisfaction.*

***H2*** *Mobile Grocery Application Atmosphere has a positive and significant effect on User Experience.*

***H2a*** *Mobile Grocery Application Atmosphere has a positive and significant effect on Hedonic dimension of User Experience.*

***H2b*** *Mobile Grocery Application Atmosphere has a positive and significant effect on Pragmatic dimension of User Experience.*

User experience has a positive and significant impact on customer satisfaction. User experience is defined as “the sum of the effects felt by the user before, during, and after interaction with a product or system in the ecology” (Hartson and Pyla, 2019). Especially on digital platforms, users' experiences directly influence their satisfaction levels. Sward and Macarthur (2007) stated that user experience is a critical factor in determining the overall quality of a product and plays a pivotal role in providing a defensible strategic advantage for businesses, especially for new entrepreneurs launching products. For example, Badran and Al-Haddad (2018) asserted that an enhancement in user experience correlates with

an increase in customer satisfaction, indicating that a meticulously crafted experience guarantees elevated user contentment. Similarly, Albert and Tullis (2013) noted that providing an accessible, engaging, and responsive user experience raises the level of user satisfaction. In this context, the hypothesis that user experience has a positive and significant impact on customer satisfaction is supported by current research, suggesting that managing user experience is a crucial strategic element in enhancing customer satisfaction.

***H3** User Experience has a positive and significant effect on customer Satisfaction.*

***H3a** Hedonic dimension of User Experience has a positive and significant effect on Customer Satisfaction.*

***H3b** Pragmatic dimension of User Experience has a positive and significant effect on Customer Satisfaction.*

User experience is emphasized to be an important determinant of continuance intention. The hedonic and pragmatic dimensions of user experience play a crucial role in shaping customers' intentions to continue using a mobile grocery application. Positive experiences during the shopping process can create a strong emotional connection between the customer and the mobile grocery application. These experiences are formed through the customer's interaction with the application's features, functionality, and overall atmosphere (Kim et al., 2016; Lin et al., 2010; Pham and Ahammad, 2017). When users have a positive hedonic experience, characterized by enjoyment, aesthetic appeal, and emotional engagement, they are more likely to consider continuing to use the application. The hedonic dimension focuses on the emotional and pleasurable aspects of the user experience. When users find an application enjoyable or aesthetically pleasing, it can enhance their overall satisfaction and encourage them to keep using it. Just as cognitive experiences related to usability and efficiency can drive continuance intention, the hedonic aspects can play a crucial role in fostering a lasting connection between users and the application (Hassenzahl et al., 2000).

Similarly, the pragmatic dimension of user experience also plays a significant role in driving continuance intention. The pragmatic dimension refers to the functional aspects of the user experience, such as usability, efficiency, and effectiveness (Hassenzahl & Tractinsky, 2006). A positive pragmatic experience can enhance user satisfaction and encourage users to continue using the product or service over time. If users find the product useful, easy to navigate, and efficient in meeting their needs, they are more likely to develop a strong intention to continue using it (Hassenzahl, 2008). An engaging and visually appealing application atmosphere, personalized recommendations, and a seamless checkout process can contribute to a positive affective experience, increasing the chances of customers continuing to use the application (Hassan & Galal-Edeen, 2017). A satisfying experience builds trust and confidence

in the mobile grocery application, increasing the likelihood of customers returning for future use. When customers have a positive experience, they perceive the application as reliable, trustworthy, and capable of meeting their needs and expectations. This trust is crucial in the online shopping context, where customers rely on the application to deliver quality products and services. A positive experience reinforces the customer's belief in the application's ability to fulfill their requirements, leading to increased continuance intention (Gefen et al., 2003; Wang et al., 2010).

Continuance intention occurs after customers have a positive experience after using a product or service offered by a seller or online store (Setyorini & Nugraha, 2016). It is a behavioral outcome that reflects the customer's willingness to engage in future transactions with the same provider. Positive experiences, both cognitive and affective, serve as a strong foundation for building long-term relationships with customers and encouraging continued usage. When customers are satisfied with their previous purchases and have had enjoyable experiences, they are more inclined to choose the same mobile grocery application for their future needs.

Customer satisfaction is a well-established predictor of continuance intention. The relationship between customer satisfaction and continuance intention has been widely studied in various contexts, including mobile grocery shopping. When customers are satisfied with their overall experience using a mobile application, they are more likely to develop a positive attitude towards the application and consider it for future purchases (Aron, 2006; Kement, 2019). Continuance is a process that is often linked to customer satisfaction. Customer satisfaction is expressed as a symptom of continuance intention because it enables businesses to make a profit due to customer retention and directly affects continuance intention. Satisfied customers are more likely to engage in continued business with the same provider, as they have developed trust and confidence in the application's ability to meet their needs and expectations. This loyalty and retention of satisfied customers contribute to the long-term profitability and sustainability of the business (Margee, 2008). When customers are satisfied with their mobile grocery shopping experience, they are more likely to develop loyalty towards the application and continue using it. Satisfaction arises when customers' expectations are met or exceeded during their interaction with the mobile grocery application. This satisfaction can be influenced by various factors, such as the quality of products, ease of use, customer service, and overall value for money. When customers consistently have positive experiences and feel satisfied with the application, they are more inclined to choose it for their future shopping needs (Kim et al., 2016; Lin et al., 2010; Pham and Ahammad, 2017).

Satisfied customers tend to view the application favorably and consider it as their preferred choice for future grocery shopping needs. They develop a positive perception of the application and associate it with reliability, convenience, and a satisfying shopping experience. This favorable view leads to

increased trust and loyalty, making customers more likely to return to the application for continued use. Satisfied customers may also recommend the application to others, further enhancing its reputation and attracting new customers (Gefen et al., 2003; Wang et al., 2010). Shin et al. (2013) argue that the satisfaction of customers is effective in continuing to use the same product and service. When customers are satisfied with a particular product or service, they are more likely to continue using it in the future. This is because satisfaction creates a positive emotional connection and reinforces the perceived value of the offering. Customers who have had a satisfying experience with a mobile application are more likely to choose the same application when they need to shop again, as they have confidence in its ability to meet their expectations (Shin et al., 2013).

***H4** Customer Satisfaction has a positive and significant effect on Continuance Intention.*

***H5** Hedonic dimension of User Experience has a positive and significant effect on Continuance Intention.*

***H6** Pragmatic dimension of User Experience has a positive and significant effect on Continuance Intention.*

***H7** Atmosphere has a positive and significant effect on Continuance Intention.*

### **3. RESEARCH METHODOLOGY**

#### **3.1. Research Purpose and Objectives**

The purpose of this study is to comprehensively examine the effects of the atmosphere of mobile grocery applications on continuance intention through user experience and customer satisfaction. The research is grounded in the S-O-R (Stimulus-Organism-Response) model developed by Mehrabian and Russell (1974), aiming to understand how the atmosphere of mobile grocery applications impacts continuance intention within this model's framework.

The key objectives of the study are:

- To evaluate the influence of the mobile grocery application atmosphere on customer satisfaction and user experience.
- To evaluate the influence of customer satisfaction and user experience on continuance intention.

While the existing literature includes numerous studies on customer shopping experiences and behaviors, these primarily focus on traditional store atmospheres. There is, however, a gap in research concerning the impact of the atmosphere of mobile grocery applications as online shopping tools on continuance intention. This study aims to fill this gap by providing a detailed analysis of how atmospheric features of mobile grocery applications influence customer behaviors and contributing new insights to this field.

#### **3.2. Research Method**

This study is designed as a conclusive, descriptive, and cross-sectional research. Conclusive research is conducted to test a specific hypothesis or to answer a particular question and is typically used to confirm findings from previous exploratory research (Malhotra et al., 2020). This study uses user experience and customer satisfaction as a definitive way to assess the impacts of the mobile grocery application environment on continuance intention. The aim of the research is to test specific hypotheses and draw conclusions based on these hypotheses.

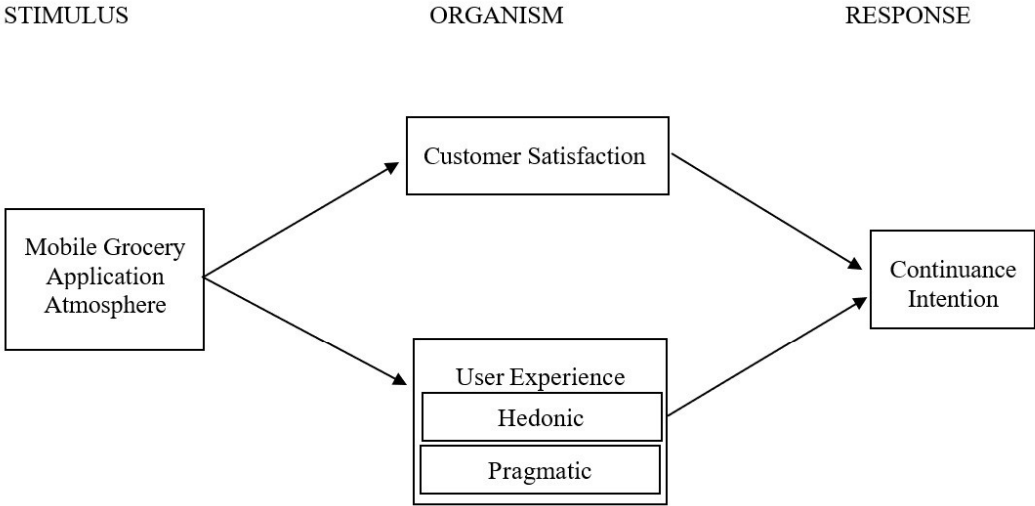
Descriptive research aims to describe the current state of a particular phenomenon and is often used to identify the characteristics of an event or phenomenon (Burns & Bush, 2014). In this study, a descriptive approach is adopted to describe the effects of atmospheric features of mobile grocery applications on continuance intention through user experience and customer satisfaction. The aim of the research is to detail the nature and scope of these relationships.

Cross-sectional research involves collecting data at a specific point in time and is typically used to assess the state of a population at a particular moment (Zikmund et al., 2013). In this study, a cross-sectional approach is adopted by collecting data from mobile grocery application users at a specific time. The aim of the research is to measure these users' experiences, satisfaction, and continuance intentions at a particular point in time.

**3.3. Research Model Development**

The research model was created within the framework of the S-O-R paradigm. The SOR model is a theory frequently used in research, especially in the field of online impulse buying, to understand how individuals' emotions and behaviors are influenced by their environment (Chen & Yao, 2018).

The research model includes four variables: mobile grocery application atmosphere, user experience, customer satisfaction, and continuance intention. When considered within the framework of the S-O-R paradigm, the mobile grocery application atmosphere is in the Stimulus section, user experience and customer satisfaction are in the Organism section, and continuance intention is in the Response section. The user experience variable consists of hedonic and pragmatic experiences. The research model is presented in Figure 2.



**Figure 2. Research Model**

### 3.4. Hypothesis of the Study

This study aims to examine the effects of the mobile market application atmosphere on continuance intention through user experience and customer satisfaction in the context of the SOR model. According to the conceptual model, the following hypotheses were developed.

**Table 1.** List of Hypotheses

<b>H</b>	<b>Hypotheses</b>
H1	Mobile Grocery Application Atmosphere has a positive and significant effect on Customer Satisfaction.
H2	Mobile Grocery Application Atmosphere has a positive and significant effect on User Experience.
H2a	Mobile Grocery Application Atmosphere has a positive and significant effect on Hedonic dimension of User Experience.
H2b	Mobile Grocery Application Atmosphere has a positive and significant effect on Pragmatic dimension of User Experience.
H3	User Experience has a positive and significant effect on Customer Satisfaction.
H3a	Hedonic dimension of User Experience has a positive and significant effect on Customer Satisfaction.
H3b	Pragmatic dimension of User Experience has a positive and significant effect on Customer Satisfaction.
H4	Customer Satisfaction has a positive and significant effect on Continuance Intention.
H5	Hedonic dimension of User Experience has a positive and significant effect on Continuance Intention.
H6	Pragmatic dimension of User Experience has a positive and significant effect on Continuance Intention.
H7	Atmosphere has a positive and significant effect on Continuance Intention.

### 3.5. Measurement Instrument

The research model includes four variables: mobile grocery application atmosphere, user experience, customer satisfaction, and continuance intention. When considered within the framework of the S-O-R paradigm, the mobile grocery application atmosphere is in the Stimulus section, user experience and customer satisfaction are in the Organism section, and continuance intention is in the Response section. These variables were measured with a total of 24 questions. Table 2 shows the used variables, items, and references from the literature.

**Table 2. Measurement Instrument**

		<b>Mobile Grocery Application Atmosphere</b>	
		<b>Design Factors (DF)</b>	<b>Source</b>
<b><u>Mobile Grocery Application Atmosphere</u></b>	<b><u>DF1</u></b>	The mobile market application I use for shopping has an attractive character.	Wakefield and Blodgett's (1996)
	<b><u>DF2</u></b>	The colors used in the mobile market application where I shop are interesting.	
	<b><u>DF3</u></b>	The mobile market application I use for shopping is remarkable in every way.	
	<b>Layout(L)</b>		
	<b><u>L1</u></b>	The mobile market application I shop on is designed to make it easier for me to find the product I'm looking for.	
	<b><u>L2</u></b>	The design of the mobile market application where I shop allows me to surf easily.	
	<b>Variety (V)</b>		
	<b><u>V1</u></b>	The variety of products offered in the application is sufficient for me.	
	<b><u>V2</u></b>	This application has plenty of product alternatives.	
	<b><u>V3</u></b>	I enjoy the variety of products in this app.	
		<b>Customer Satisfaction, User Experience</b>	
<b><u>User Experience</u></b>	<b>User Experience</b>		Schrepp, Martin & Hinderks, Andreas & Thomaschewski, Jörg. (2017).
	<b><u>UE1</u></b>	Obstructive- Supportive	
	<b><u>UE2</u></b>	Complicated- Easy	
	<b><u>UE3</u></b>	Inefficient- Efficient	
	<b><u>UE4</u></b>	Confusing - Clear	
	<b><u>UE5</u></b>	Boring - Exciting	
	<b><u>UE6</u></b>	Not interesting - Interesting	
	<b><u>UE7</u></b>	Conventional - Inventive	
<b><u>UE8</u></b>	Usual - Leading Edge		
		<b>Customer Satisfaction</b>	
<b><u>Customer Satisfaction.</u></b>	<b><u>CS1</u></b>	The grocery delivery app I used last time fulfilled my needs.	Dirsehan and Cankat (2021).
	<b><u>CS2</u></b>	The grocery delivery app I used last time fulfilled my expectations.	
	<b><u>CS3</u></b>	I liked the grocery delivery app I used last time.	
	<b><u>CS4</u></b>	The grocery delivery app I used last time is of high quality.	
	<b><u>CS5</u></b>	Overall, I am satisfied with the grocery delivery app I used last time.	
		<b>Continuance Intention to Use</b>	
<b><u>Continuance Intention to Use</u></b>	<b><u>CI1</u></b>	I intend to continue using this mobile market application for my regular shopping	Bhattacharjee, A., Perols, J., & Sanford, C. (2008).
	<b><u>CI2</u></b>	I intend to continue using this mobile market application for my shopping needs.	
	<b><u>CI3</u></b>	I intend to continue using this mobile market application for more of my shopping.	

## **3.6. Sampling Design**

### **3.6.1. Target Population**

The target population refers to a specific group of individuals who have been identified as the focus of the research, and from whom data is being systematically collected in order to address the research objectives and hypotheses (Malhotra et al., 2020). In this study, the target population consists of mobile grocery application users in Istanbul.

### **3.6.2. Sampling Technique**

In this study, the simple random sampling method, which is one of the probability sampling techniques, was utilized. Simple random sampling is a method where each individual in the population has an equal chance of being included in the sample. In this method, individuals are selected entirely at random, which increases the likelihood that the sample will accurately represent the entire population (Malhotra et al., 2020). Additionally, snowball sampling was employed to reach participants who might have been difficult to access through random sampling alone. To perform snowball sampling, a connection is established with one of the units in the universe in some way. Then, with the help of the person with whom the connection is established, contact is established with another, and then with another in the same way. In this way, the sample is enlarged in a chain reaction, in the form of a snowball effect. (Biernacki & Waldorf, 1981).

There are several reasons for choosing this method. Firstly, simple random sampling minimizes sampling bias, thereby enhancing the generalizability of the research findings to the broader population. Secondly, this method provides ease and flexibility during the data collection process. For example, it is a suitable method for creating a sample that represents a wide and diverse population of mobile grocery application users. Additionally, employing this method ensures that the statistical analysis of the data is more reliable and valid (Burns & Bush, 2014). In conclusion, the simple random sampling method was determined to be the most appropriate method to achieve the research objectives. Using this method allows for more accurate and reliable measurement of the effects of the mobile grocery application atmosphere on user experience, customer satisfaction, and continuance intention.

### **3.6.3. Sampling Size**

The population consists of virtual store application users. According to Turkish Statistical Institute (TÜİK) data, 87% of individuals in Turkey, which has a population of approximately 80 million, use

the internet and 50% of internet users shop online (TÜİK, 2023). Accordingly, the population is estimated to be approximately 35 million people. Several factors were taken into consideration in determining the sample size. Since it is planned to test the hypotheses using structural equation modeling (SEM), the minimum criterion of 200 participants suggested by Hoelter (1983) was taken into consideration. In addition, the “10-fold rule” (Hair et al., 2011), which is widely used for PLS-SEM, was taken into consideration. Considering that with this rule, the maximum number of model links pointing to any variable in the model is 4, the minimum sample size was estimated as 40. However, this method is thought to have the potential to give estimates with bias; thus, the minimum R-square method was also taken into consideration, as proposed by Hair et al. (2014). With this method, given that at most 4 arrows point to a variable and a minimum R<sup>2</sup> of 0.1, the model's minimum sample size is 137. Hence, based on the sample of 202 participants used for our research study, the sample size is in excess of the minimum criteria of 200 participants from Hoelter, 1983, and minimum sample sizes from Hair et al. (2011, 2014). The sample size will guarantee sufficient power to study the statistical analysis and increase the reliability of the results.

### **3.7. Data Collection and Sample Characteristics**

A questionnaire technique was used to collect data in the study. The questionnaire of the research was conducted online. Online questionnaires are much faster in obtaining feedback from participants compared to traditional questionnaire techniques. In addition, online surveys are less costly and save time. Participants were informed about the purpose of the study before the questionnaire was administered. In addition, it was stated that the participants were not asked for their personal information, the data would never be shared and would only be used for scientific purposes. After this information, the participants' voluntary consent for participation was obtained. The questionnaire form was distributed to the participants via platforms such as e-mail, social media, and WhatsApp.

The questionnaire used to collect data in the study consists of six parts. The first section includes questions regarding the usage of mobile grocery applications.

The mobile grocery application atmosphere scale was adapted from Wakefield and Baker's (1998) study, which was thought to provide the most appropriate data for research purposes. The scale consists of 5 items. The Cronbach alpha reliability coefficient of the scale was reported as 0.860 (Wakefield & Baker, 1998).

The user experience scale was created by utilizing the study of Schrepp et al. (2017). One often used tool for measuring customers' subjective perceptions of product experiences is the user experience questionnaire (UEQ). The UEQ is a 26-item semantic differentiation test. The development of an 8-item

abbreviated form of the UEQ that is tailored for these particular application scenarios is the focus of this research. The hedonic and pragmatic quality scales had a comparatively high degree of consistency. The equivalent Cronbach Alpha scores for pragmatic quality and hedonic quality were 0.810 and 0.850, respectively (Schrepp et al., 2017).

The customer satisfaction scale was adapted from Dirsehan and Cankat's (2021) study. The customer satisfaction scale consists of 5 questions and Cronbach's alpha reliability coefficient of the scale was reported as 0.959 (Dirsehan & Cankat, 2021).

The continuance intention scale was adapted from the Bhattacharjee et al. (2008) study. The continuance to use scale consists of 3 questions and Cronbach's alpha reliability coefficient of the scale was reported as 0.850 (Pragmatic Quality) and 0.810 (Hedonic Quality) (Bhattacharjee et al., 2008).

**Table 3.** Sample Characteristic

Demographics		f	%	Mobile Shopping Frequency		ANOVA (p)
				$\bar{x}$ *	sd	
Gender	Female	98	48,5%	2,3	1,2	0,852
	Male	101	50,0%	2,3	1,2	
	Prefer not to say	3	1,5%	2,7	1,2	
Age	18-25	18	8,9%	2,1	1,4	0,143
	26-35	75	37,1%	2,4	1,3	
	36-45	43	21,3%	2,5	1,2	
	46-55	27	13,4%	2,3	1,0	
	56+	39	19,3%	1,9	1,0	
Education	High school and below	26	12,9%	2,4	1,4	0,324
	Associate Degree	43	21,3%	2,0	1,1	
	Bachelor's Degree	121	59,9%	2,4	1,2	
	Graduate Degree	12	5,9%	2,5	1,5	
Geographic Region	Mediterranean Region	69	34,2%	2,2	1,2	0,593
	Eastern Anatolia Region	10	5,0%	2,4	1,4	
	Aegean Region	8	4,0%	2,5	1,4	
	Southeastern Anatolia Region	21	10,4%	2,0	1,1	
	Central Anatolia Region	23	11,4%	2,1	1,1	
	Black Sea Region	20	9,9%	2,7	1,5	
	Marmara Region	51	25,2%	2,4	1,2	
Monthly Income	17,000 TL and below	14	6,9%	1,7	1,1	0,031
	Between 17.001 TL – 19.000 TL	31	15,3%	2,3	1,4	
	Between 19.001 TL – 64.000 TL	120	59,4%	2,2	1,2	
	64,001 TL and above	37	18,3%	2,8	1,2	

\*Measured with a 5-point Likert

When Table 3 is analyzed, it is seen that the gender distribution is balanced. Of the participants, 48.5% were female, 50.0% were male and 1.5% did not want to specify their gender. It is observed that the average mobile shopping frequency of female and male participants is equal ( $\bar{x} = 2.3$ ,  $sd = 1.2$ ). According to the ANOVA analysis results, there is no significant difference between the groups ( $F=0.161$ ;  $p=0.852$ ).

In the age distribution, the largest group is the 26-35 age group with 37.1%. This is followed by the 36-45 age group (21.3%), 56 and over age group (19.3%), 46-55 age group (13.4%) and 18-25 age group (8.9%). The highest average mobile shopping frequency was observed in the 36-45 age group ( $\bar{x} = 2.5$ ,  $sd = 1.2$ ) and the lowest in the 56 and over age group ( $\bar{x} = 1.9$ ,  $sd = 1.0$ ). According to the ANOVA analysis results, there is no significant difference between the groups ( $F=1.740$ ;  $p=0.143$ ).

In terms of education level, 59.9% of the participants have a bachelor's degree. This is followed by associate's degree with 21.3%, high school and below with 12.9%, and graduate degree with 5.9%. The average frequency of mobile shopping was highest among graduate graduates ( $\bar{x} = 2.5$ ,  $sd = 1.5$ ) and lowest among associate degree graduates ( $\bar{x} = 2.0$ ,  $sd = 1.1$ ). According to the ANOVA analysis results, there is no significant difference between the groups ( $F=1.166$ ;  $p=0.324$ ).

In terms of geographical distribution, 34.2% of the participants were from the Mediterranean Region and 25.2% were from the Marmara Region. The other regions are Central Anatolia (11.4%), Southeast Anatolia (10.4%), Black Sea (9.9%), Eastern Anatolia (5.0%) and Aegean (4.0%). The average mobile shopping frequency was highest in the Black Sea Region ( $\bar{x} = 2.7$ ,  $sd = 1.5$ ) and lowest in Southeastern Anatolia ( $\bar{x} = 2.0$ ,  $sd = 1.1$ ). According to the ANOVA analysis results, there is no significant difference between the groups ( $F=0.772$ ;  $p=0.593$ ).

In terms of monthly income distribution, 59.4% of the participants have an income between 19,001 TL and 64,000 TL. This is followed by the income groups of TL 64,001 and above with 18.3%, TL 17,001 - TL 19,000 with 15.3%, and TL 17,000 and below with 6.9%. The highest average mobile shopping frequency was observed in the income group of 64,001 TL and above ( $\bar{x} = 2.8$ ,  $sd = 1.2$ ) and the lowest in the income group of 17,000 TL and below ( $\bar{x} = 1.7$ ,  $sd = 1.1$ ). According to the ANOVA analysis results, there is a statistically significant difference between the groups ( $F=3.018$ ;  $p=0.031$ ). According to the results of Scheffe post-hoc analysis was performed to determine which groups the difference is between; the mobile shopping frequency of those with a monthly income of 64,001 TL and above is significantly higher than those with a monthly income of 17,000 TL and below.

## 4. ANALYSIS AND FINDINGS

### 4.1. Non-Response Bias and Normal Distribution Test

Since the response sample must be representative, a non-response bias test was necessary before running the main analysis of whether there is any systematic difference between early and late respondents. Armstrong & Overton (1977) defined non-response bias as a situation where the opinions or characteristics of non-respondents differ significantly from those who responded.

The method of extrapolation suggested by Armstrong and Overton, 1977 has been followed for checking non-response bias by comparing early and late respondents based on the assumption that late respondents would be closer to non-respondents. While matching the first 30 responses with the last 30, items dealing with satisfaction and Continuance Intention to Use - CIU were focused.

These were compared using independent samples t-tests. These revealed no significant differences between early and late respondents for their responses to the items measuring satisfaction and CIU,  $p > 0.05$ . That would imply that there is no cause to be concerned about the bias effect of non-response in the present study; this sample represents a population of interest.

Following the non-response bias test, a Normal Distribution Test is conducted to ascertain whether the dependent variables exhibit a normal distribution. The values of skewness and kurtosis are displayed in Table 4.

The permissible range for Kurtosis and Skewness is between -1.5 and 1.5 (Tabachnick, Fidell, & Ullman, 2013). The dependent variables exhibit a normal distribution since the Skewness and Kurtosis values for all dependent variables fall within the range of +1.5 to -1.5. The skewness values in the table indicate that most constructs have a slight to moderate left skew (negative skew), but they are generally within the acceptable range (between -1 and +1). Only ExpP4 has a slightly higher skewness (-1.10), but it is not drastically outside the acceptable range. The kurtosis values indicate that all constructs exhibit relatively normal or slightly flatter-than-normal distributions (negative kurtosis), but they fall within the acceptable range of -2 to +2.

**Table 4.** Normal Distribution Test

Construct	Items	Skewness	Kurtosis
Design Factors	DF1	-0.18	-0.91
	DF2	-0.45	-0.87
	DF3	-0.16	-0.93
Layout	L1	-0.79	-0.53
	L2	-0.68	-0.80
Variety	V1	-0.29	-1.24
	V2	-0.38	-1.14
	V3	-0.49	-0.92
Hedonic Experience	ExpP1	-0.86	1.02
	ExpP2	-0.68	0.25
	ExpP3	-0.97	0.94
	ExpP4	-1.10	0.96
Pragmatic Experience	ExpH1	-0.23	-0.24
	ExpH2	-0.12	-0.14
	ExpH3	-0.30	-0.21
	ExpH4	-0.02	-0.67
Customer Satisfaction	CS1	-0.98	-0.00
	CS2	-0.85	-0.27
	CS3	-0.88	-0.22
	CS4	-0.52	-0.53
	CS5	-0.72	-0.46
Continuance Intention to Use	CI1	-0.63	-0.59
	CI2	-0.67	-0.55
	CI3	-0.87	-0.30

#### 4.2. Construct Reliability And Validity

Before examining the structural model, we assessed its internal consistency, convergent validity, and discriminant validity.

Firstly, we evaluated discriminant validity by calculating the Fornell-Larcker Criterion, which asserts that a latent variable shares greater variance with its designated indicators than with any other latent variable in the structural model (Hair et al., 2014). This criterion mandates that the square root of any Average Variance Extracted (AVE) must exceed its correlation coefficients with any other latent construct.

**Table 5.** Evaluation of correlation matrix and discriminant validity (Fornell-Larcker Criterion)

Construct	CS	ExpP	ExpH	Atmosphere	CIU
CS	0.88				
ExpP	0.23	0.54			
ExpH	0.14	0.42	0.68		
Atmosphere	0.65	0.18	0.08	0.76	
CIU	0.71	0.20	0.13	0.52	0.94

*Note.* Squared correlations; AVE in the diagonal.

As seen in Table 5, Each construct explains more variance through its own items (reflected in the AVE) than through its relationships with other constructs (reflected in the squared correlations). Each construct is distinct and measures something unique from the others, thus establishing discriminant validity.

The HTMT ratio between the factors of MGA Atmosphere; DF, L, and V were considerably higher (0.912, 0.928, 0.895) than the cutoff value (0.85), these variables were merged and replaced with a new (merged) construct, as suggested by Henseler et al. (2015).

**Table 6.** Assessment of discriminant validity (HTMT)

Construct	1. MGA Atmosphere	2.	3.	4.	R <sup>2</sup>
2. Hedonic Experience	0.263				0.076
3. Pragmatic Experience	0.427	0.638			0.185
4. Customer Satisfaction	0.805	0.370	0.479		0.679
5. Continuance Intention to Use	0.718	0.354	0.442	0.840	0.713

Table 6 shows the Heterotrait-Monotrait (HTMT) ratios of each construct to assess the discriminant validity of the constructs used in the study. As seen in Table 6;

- The HTMT ratios between MGA Atmosphere and other constructs vary between 0.263 and 0.805.
- The HTMT ratios between Hedonic Experience and other constructs are between 0.263 and 0.638.

- The HTMT ratios between Pragmatic Experience and other constructs are between 0.427 and 0.638.
- The HTMT ratio between Customer Satisfaction and Intention to Continue Using is 0.840.
- R<sup>2</sup> values were calculated as 0.076 for Hedonic Experience, 0.185 for Pragmatic Experience, 0.679 for Customer Satisfaction, and 0.713 for Intention to Continue Using.

In order to assess the discriminant validity of the constructs used in the study, it is generally expected that the HTMT ratios should be below 0.90 (Gold et al., 2001). In this context, it is seen that the HTMT ratios between the constructs are within acceptable limits and therefore the constructs are sufficiently differentiated from each other.

R<sup>2</sup> values show the explanatory power of the model. According to the criteria proposed by Cohen (1988), 0.02 represents a low, 0.13 a medium, and 0.26 a high effect size. In this context:

- The effect of MGA Atmosphere on Hedonic Experience is low (R<sup>2</sup> = 0.076)
- The effect of MGA Atmosphere on Pragmatic Experience is moderate (R<sup>2</sup> = 0.185)
- The explanatory power of the model on Customer Satisfaction (R<sup>2</sup> = 0.679) and Intention to Continue Using (R<sup>2</sup> = 0.713) is quite high.

Following the discriminant validity analysis, the reliability and convergent validity of the scales were assessed. For this purpose, factor loadings, Cronbach's alpha, Dijkstra-Henseler's rho ( $\rho_A$ ) coefficient, Jöreskog's rho ( $\rho_c$ ) coefficient, and Average Variance Explained (AVE) values were analyzed. The results of the analysis are presented in Table 7.

**Table 7.** Evaluation of scales for reliability and convergent validity

Construct	Items	M (SD)*	Loading ( $\lambda$ )	Cronbach's $\alpha$	Dijkstra-Henseler's rho ( $\rho_A$ )	Jöreskog's rho ( $\rho_c$ )	VIF	AVE
Design Factors <sup>a</sup>	DF1	3.15 (1.17)	0.912	0.927	0.928	0.927	4.69	0.810
	DF2	3.26 (1.24)	0.884				4.12	
	DF3	3.09 (1.20)	0.903				4.49	
Layout <sup>a</sup>	L1	3.53 (1.29)	0.923	0.920	0.920	0.920	4.76	0.853

Continuation of Table 7

Variety <sup>a</sup>	V1	3.20 (1.32)	0.887	0.924	0.924	0.924	3.42
	V2	3.31 (1.34)	0.901				4.13
	V3	3.34 (1.26)	0.898				5.16
MGA Atmosphere <sup>b</sup>				0.962	0.964	0.963	
Hedonic Experience	ExpH1	4.64 (1.45)	0.828	0.895	0.893	0.891	2.82
	ExpH2	4.41 (1.49)	0.842				2.80
	ExpH3	4.48 (1.49)	0.854				3.03
	ExpH4	3.75 (1.70)	0.748				1.85
Pragmatic Experience	ExpP1	5.30 (1.29)	0.721	0.828	0.829	0.828	1.66
	ExpP2	5.22 (1.31)	0.731				1.71
	ExpP3	5.44 (1.34)	0.734				1.77
	ExpP4	5.39 (1.48)	0.770				2.00
Customer Satisfaction	CS1	3.63 (1.20)	0.917	0.969	0.974	0.973	5.40
	CS2	3.53 (1.18)	0.945				8.65
	CS3	3.50 (1.18)	0.950				10.17
	CS4	3.40 (1.14)	0.929				6.08
	CS5	3.53 (1.22)	0.945				8.92

Continuation of Table 7

Continuance Intention to Use	CI1	3.50 (1.21)	0.968	0.978	0.978	0.978	11.05	0.937
	CI2	3.47 (1.21)	0.972				13.02	
	CI3	3.46 (1.23)	0.965				9.44	

\*Measured with a 5-point Likert

As seen in Table 7;

- Factor Loadings ( $\lambda$ ): Factor loadings of all items ranged between 0.721 and 0.972.
- Cronbach's alpha ( $\alpha$ ): Values between 0.828 and 0.978 were obtained for all constructs.
- Dijkstra-Henseler's rho ( $\rho_A$ ) coefficient: ranged between 0.829 and 0.978.
- Jöreskog's rho ( $\rho_c$ ) coefficient: between 0.828 and 0.978.
- Average Variance Explained (AVE): Values between 0.546 and 0.937 were obtained.
- MGA Atmosphere: The construct created by combining the Design Factors, Layout, and Variety sub-dimensions shows high reliability ( $\alpha = 0.962$ ,  $\rho_A = 0.964$ ,  $\rho_c = 0.963$ ) and AVE (0.764) values.

The table summarizes the VIF values for various indicators in the model. According to Rogerson (2001), VIF values below 5 are generally considered acceptable, while Kutner et al. (2004) suggest that values below 10 do not indicate severe multicollinearity. Most indicators in the model have VIF values below 5, such as DF1, DF2, ExpP1, and ExpH4, which indicates no multicollinearity concerns for these variables. However, several indicators, such as CS2 (VIF = 8.65), CS3 (VIF = 10.17), CI1 (VIF = 11.05), and CI2 (VIF = 13.02), have higher VIF values, which may signal potential multicollinearity issues.

Given the presence of these higher VIF values, we opted to proceed with Partial Least Squares Structural Equation Modeling (PLS-SEM). As Hair et al. (2017) explain, PLS-SEM is more tolerant of multicollinearity because it focuses on maximizing the variance explained rather than fitting a covariance structure. This makes it particularly suitable for exploratory models where multicollinearity is a concern but not prohibitive to analysis.

When the reliability and convergent validity of the scales are evaluated;

1. Factor Loadings: According to Hair et al. (2019), factor loadings are expected to be above 0.70. The fact that all items meet this criterion indicates that each item represents the relevant construct well.

2. **Internal Consistency Reliability:** Cronbach's alpha, Dijkstra-Henseler's rho ( $\rho_A$ ), and Jöreskog's rho ( $\rho_c$ ) coefficients were evaluated. According to Nunnally and Bernstein (1994), these values above 0.70 indicate sufficient reliability. The fact that all constructs meet this criterion indicates that the scales have high internal consistency.
3. **Convergent Validity:** Fornell and Larcker (1981) have suggested that AVE values greater than 0.50 assure convergent validity. All constructs meet this criteria, the lowest AVE value is 0.546 for Pragmatic Experience.
4. **MGA Atmosphere:** The combined construct indicates a high degree of reliability and AVE values. The results show that the sub-dimensions Design Factors, Layout, and Variety are well combined. In addition, they are reliably and validly measuring the MGA Atmosphere.
5. **Hedonic and Pragmatic Experience:** The reliability and AVE values of these constructs are acceptable.
6. **Customer Satisfaction and Intention to Continue Using:** The reliability and AVE values of these constructs are very high.

In all, the above-mentioned measurement scales meet the criteria of reliability and convergent validity. From the overall analysis, it can be assessed that the measurement model in this study is well-founded, and the constructs have been measured highly coherently and reliably.

### **4.3. Model's Goodness of Fit**

We used the ADANCO 2.3.2 software (Henseler & Dijkstra, 2015) to analyze the structural model. In order to assess the model fit in PLSc-PM, a standardized root mean square residual (SRMR) and discrepancy values should be estimated. PLSc-PM (Partial Least Squares Consistent - Path Modeling) is a variant of the Partial Least Squares (PLS) method and was developed specifically for a more consistent estimation of the structural model. PLS-PM is generally preferred for small sample sizes and theoretical modeling studies because it has less stringent assumptions than covariance-based methods (e.g. CB-SEM). However, PLS in its original form can cause some bias in the estimates, especially in reflective measurement models. At this point, PLSc (Consistent PLS) comes into play as an extension of PLS. PLSc corrects the bias problem of the classical PLS method and makes the results more consistent with covariance-based approaches. In other words, it corrects the bias tendency of PLS when there are reflective structures in the model and makes the results more reliable. Starting with the SRMR, which measures the difference between the observed and model-implied correlation matrices, the provided value is 0.0879. Values below 0.08 are considered to indicate an acceptable model fit (Hu & Bentler, 1999). However, the value of 0.0879 is slightly above this threshold, which suggests the model may have some fit issues. It is important to note that this model was examined in an exploratory manner and should not be considered conclusive.

Moving on to the dULS, which reflects the discrepancy between the observed and model-implied correlation matrices using unweighted least squares, The model's dULS value of 2.3196 is significantly higher than both HI95 and HI99, which strongly suggests a poor model fit based on the unweighted least squares criterion (Henseler et al., 2014). Lastly, the dG (Geodesic discrepancy) measures the discrepancy between the observed and model-implied covariance matrices, where lower values indicate better model fit. Here, the model's dG value is 1.4091. The model's dG value is slightly above the 95% confidence interval (1.4023) but remains within the 99% interval (1.7989).

#### 4.4. Path Analysis And Hypotheses Testing

Path analysis was conducted to test the structural relationships of our research model and to evaluate our hypotheses. The results of the analysis are presented in Table 8. Also, the figure pertaining to the analysis is visually given in App.3.

**Table 8.** Structural Model Results

	Path coefficient	Indirect effect	Total effect	Cohen's $f^2$
Atmosphere -> ExpH	0.275***		0.275***	<b>0.082</b>
Atmosphere -> ExpP	0.429***		0.430***	<b>0.226<sup>a</sup></b>
Atmosphere -> CS	0.734***	0.071**	0.850***	<b>1.368<sup>b</sup></b>
Atmosphere -> CIU	0.124	0.596***	0.719***	0.018
ExpH -> CS	0.121*		0.120*	<b>0.026</b>
ExpH -> CIU	0.039	0.086*	0.126	0.003
ExpP -> CS	0.088		0.088	0.012
ExpP -> CIU	0.021	0.063	0.084	0.001
CS -> CIU	0.715***		0.715***	<b>0.573<sup>b</sup></b>

Note1. \* $p < .10$ , \*\* $p < .05$ , \*\*\* $p < .01$

Note2. The  $f^2$  values of 0.02, 0.15<sup>a</sup>, and 0.35<sup>b</sup> serve to denote a weak, moderate, or strong influence of a predictor latent variable at the structural level, respectively.

When the structural model results presented in Table 8 are analyzed;

1. Effects of Atmosphere:

- Atmosphere appears to have a positive and potentially significant effect on Hedonic Experience (ExpH) ( $\beta = 0.275$ ,  $p < 0.01$ ). This effect seems to have a weak to moderate effect size according to Cohen's classification ( $f^2 = 0.082$ ).
- The influence of Atmosphere on Pragmatic Experience (ExpP) also seems to be positive and significant ( $\beta = 0.429$ ,  $p < 0.01$ ). This effect appears to have a moderate effect size ( $f^2 = 0.226$ ).
- Atmosphere appears to have a strong, positive, and significant direct effect on Customer Satisfaction (CS) ( $\beta = 0.734$ ,  $p < 0.01$ ). When the indirect effect is also taken into account, the total effect seems to be even stronger ( $\beta = 0.850$ ,  $p < 0.01$ ). The effect size appears to be high ( $f^2 = 1.368$ ).
- The direct effect from Atmosphere to CIU seems to be insignificant, with  $\beta = 0.124$  and  $p > 0.10$ . However, when the indirect effect is considered, the total effect appears to become positive and potentially significant, with  $\beta = 0.719$  and  $p < 0.01$ .

2. Effects of Hedonic Experience (ExpH):

- ExpH seems to be weakly but significantly related to Customer Satisfaction:  $\beta = 0.121$ ,  $p < 0.10$ .
- The impact of ExpH on CIU appears to be insignificant as a direct effect; however, when considering the indirect effect, the total effect seems to be weak, with  $\beta = 0.126$ .

3. Effects of Pragmatic Experience:

- ExpP does not appear to have significant effects on either CS or CIU.

4. Effects of Customer Satisfaction (CS):

- CS seems to have a strong, positive, and potentially significant effect on CIU ( $\beta = 0.715$ ,  $p < 0.01$ ). The effect size appears to be high ( $f^2 = 0.573$ ).

In view of these findings, implications that come up are as follows:

1. MGA atmosphere positively influences hedonic and pragmatic dimensions of user experience. This indicates a significant role of atmosphere in shaping user experience.
2. The strong effect of the atmosphere on customer satisfaction shows the importance of atmosphere design in MGAs.
3. The weak but significant effect of hedonic experience on customer satisfaction shows that the enjoyment and entertainment aspect of users should not be ignored.

4. The small magnitude of most pragmatic experience effects suggests that the user assesses other aspects of the MGA than functionality.
5. The positive effect of customer satisfaction on the intention to continue using MGAs indicates that satisfaction is important for the success of MGAs.
6. The strongly indirect role of the atmosphere in the intention to continue using MGA suggests that customer satisfaction is an important factor in that relationship.

It follows that the atmosphere design and factors influencing the increase in customer satisfaction will be effective in raising the intention of continuous use by the users.

**Table 9.** Summary of Hypothesis

<b>H</b>	<b>Hypotheses</b>	<b>Supported</b>	<b>Partially Supported</b>	<b>Not Supported</b>
H1	Mobile Grocery Application Atmosphere has a positive and significant effect on Customer Satisfaction.	X		
H2a	Mobile Grocery Application Atmosphere has a positive and significant effect on Hedonic dimension of User Experience.	X		
H2b	Mobile Grocery Application Atmosphere has a positive and significant effect on Pragmatic dimension of User Experience.	X		
H3a	Hedonic dimension of User Experience has a positive and significant effect on Customer Satisfaction.	X		
H3b	Pragmatic dimension of User Experience has a positive and significant effect on Customer Satisfaction.			X
H4	Customer Satisfaction has a positive and significant effect on Continuance Intention.	X		
H5	Hedonic dimension of User Experience has a positive and significant effect on Continuance Intention.			X
H5	Pragmatic dimension of User Experience has a positive and significant effect on Continuance Intention.			X
H7	Atmosphere has a positive and significant effect on Continuance Intention.		X	

## 5. DISCUSSION

Our research investigated how the atmosphere of an application affects consumers' continuance intentions. According to our study, the atmosphere of an e-store has a positive and significant effect on hedonic experience. Our finding lines up with those of other scholars, citing Ercan, & Alagöz's (2014) study which reported a positive significant association between store environment and hedonic shopping experiences pointing out that, it makes shopping pleasurable. Equally, Muhammad, Musa, & Ali (2014) argue that store design and social factors are important determinants of shoppers' hedonic experiences. The research done on these findings shows that a good atmosphere that creates emotions can lead people back while making them want more from you as well. Research also shows us that the same effect as hedonic elements on traditional stores is observed in mobile ones, especially during usage scenarios with applications. A customer would describe a hedonic experience as that which enables them to have emotional gratification from shopping. Its colors, layout, interactive characteristics, and user-friendliness help influence these positive feelings which are essential for its deliverance. According to Ercan and Alagöz (2014); mobile store surroundings also facilitate the customers to view shopping not only as a must but rather as an entertaining activity. This comes out as a significant factor in promoting the hedonic experience. The importance of physical store-like design and user-friendly environment in mobile applications is demonstrated by the attention it was given in the Muhammed et al. (2014) paper. The users of mobile stores are able to access social factors designed to increase the fun feel of buying the goods they want. Users perceive shopping not as a boring or difficult task based on these results but as a more enjoyable activity thanks to the application atmosphere. Instead, they are more likely to see shopping as entertainment due to the emotional bonds that they develop with an app for a mobile store. Such a situation can result in a higher level of hedonic experience through mobile store applications.

Our study indicated that there is a noticeable and positive influence of the atmosphere of mobile grocery applications on pragmatic experiences. This is consistent with the literature. It is possible to find by simply checking one specific study: Alzayat and Lee (2021) discovered that a virtual store's atmosphere has an important influence on a consumer's utilitarian (pragmatic) experience. Pizzi, Scarpi, Pichierri, and Vannucci (2019) also documented the relevance of hedonic and utilitarian values in enhancing the online store atmosphere. Their study findings indicate that this field of study encapsulates the idea of amusement while, at the same time, providing solutions to users' problems, and saving on time. Similarly, Lorenzo-Romero, Gómez-Borja, and Molla-Descals (2011) investigated consumer responses toward utilitarian and hedonic atmospheric dimensions in the context of online shopping revealing that

the store atmosphere contributes greatly to the pragmatic experience. The results suggest that the mobile grocery application atmosphere allows users to experience shopping that is satisfying and emotionally successful as well as functionally efficient. In a shopping process, pragmatic experience refers to saving users time as well as meeting needs and efficient application utilization (Cesur and Çam, 2021). This means that such benefits are strengthened when customers can easily find what they want within minutes just before they finish payment processes at e-commerce sites via their smartphones or tablets (“mobile commerce”), which leads to better customer satisfaction ratings across the board units through time efficiency on one hand and quality assurance on other side lines in product range selection criteria including safety standards specified by specific markets such electronics or cosmeceuticals (Cengiz, 2010). This makes the pragmatic experience of the mobile application beneficial to users.

Our research revealed that customer satisfaction is mainly influenced by the atmosphere in a mobile grocery application. The satisfaction of clients depends on whether or not their expectations have been met. This is why users are satisfied after coming across the shop environment or ambiance. An elegant mobile grocery application leads users comfortably and satisfactorily through an app on their devices without making the experience look bad with too many attractions of color. Some writers also agreed with this concept, such as those in Abrar et al.’s (2017) research which found out that internet store ambiance has its ramifications. An illustrative view postulated by Abrar et al. (2017) that the internet customer satisfaction led to direct effects which made customers return to the mobile store indicates that satisfaction is crucial when choosing a store afresh, while the atmosphere is a major determinant of that customer satisfaction. The virtual store atmosphere has elements that significantly affect customer satisfaction as noted by Gullu et al. (2021), with a particular touch on user satisfaction enhancement in the online shopping process through atmospheric elements. There was a strong positive significant impact of store atmosphere on customer satisfaction according to Jalil, Fikry & Zainuddin (2016). Besides, Ha & Lennon (2010) show that atmospheric cues of a website significantly influence consumer satisfaction. From these findings, it is evident that apart from other functional benefits that it offers to the customer, the mobile grocery application atmosphere also provides emotional satisfaction. This result supports the current literature and resonates with earlier research on the link between store atmosphere and customer satisfaction. As we found out in the end, the powerful impact of atmosphere on customer satisfaction could be attributed to user experience in grocery applications. In general, mobile grocery applications have user-friendly interfaces, quick transaction mechanisms, attractive aesthetics, and personalized recommendations. They provide for the needs of customers both functionally and emotionally leading to higher levels of satisfaction.

At the end of our research, we found out that the environment positively influenced consumers’ continuance intention in an application of a mobile grocery application significantly. The finding is that

the atmosphere in grocery applications boosts the intention of customers to use the application again. The environment of an application affects the user's experience significantly, making shopping experiences more enjoyable and satisfactory, thus increasing the continuance intention of the application. It is due to a nice environment that customers find it easy to keep interacting with an app thus being loyal to it. This is consistent with a study by Elibol (2023) who noted that virtual store atmospheres positively and significantly influence online repurchase intentions. Concurrently, Elibol noted how the traffic on virtual environments could possibly amplify the continuance habits of virtual consumers when his research team worked with internet sellers' data sets from Amazon websites during their research investigations time frame to study this relationship. Similarly, sensorial-dissonance-reducing-continuance-enhancements were observed to be present in well-designed digital outlets according to Ayazlar and Yüksel (2012). The virtual environment shapes user behavior. Another study conducted by Sun (2019) shows that when the virtual store atmosphere is considered, users tend to come back. This is in line with our results, which suggest that the surroundings of grocery application apps influence consumers' resolve to return.

Our research shows that the effects of hedonic experience on customer satisfaction are barely significant. The finding suggests that there is a relationship between hedonic experience and customer satisfaction even if it is not directly strong. Hedonic experiences provide customers with pleasure and enjoyment, which increase their satisfaction, especially in terms of sensory experiences although this satisfaction might not be full. Customer satisfaction depends on hedonic factors as well as other components including pragmatic experience, cost as well as product quality. This is in alignment with a study carried out by Can and Yiğit (2018) which sort to investigate the impact of hedonic shopping value on shopping satisfaction. The research found that there is a slight connection between hedonic experiences and shopping satisfaction indicating that hedonic values alone do not form the basis for customer satisfaction. These two studies show us that hedonic experiences have some influence over clients' level of satisfaction but it is restricted. Nevertheless, it is important to note that even though there are uniform impacts on customer satisfaction from hedonic experiences, we might note variations among generations or some customer segments.

When it comes to customer loyalty, one of the most crucial determinants is satisfaction. Our study determines that contented customers will most possibly utilize the service again. For an individual who uses his/her mobile phone to purchase goods from an online shop, once there is satisfaction in the experience obtained while purchasing through your platform; there is an increased intention to buy goods from this shop again. Some of the factors that are associated with satisfaction include service quality, functionality, and ease of use. Nonetheless, loyalty can be defined by satisfaction that is equal to customers' needs as well as other factors like service quality, features of the good, or even friendliness

among employees. According to previous research, the satisfaction of customers with the entire experience in the use of mobile store applications increases their likelihood of developing positive attitudes towards it for future purchases (Aron, 2006; Kement, 2019). Doğan and Burucuoğlu (2018) also echo these sentiments when they state that customer satisfaction is the strongest determinant of user intention in reusing mobile banking services quality perceptions. This means that if people want to come back again after using something once or more their satisfaction level must have been high enough, so they are more likely to return than those who were not satisfied at all or remained indifferent towards it throughout the trial periods provided under studies conducted by other authors (Aron, 2006; Kement, 2019). As can be seen, by Shin et al., (2013), customers who have experienced a satisfactory thing from a mobile grocery application are more probable when they choose the same app again for their shopping needs with the assumption that the app will live up to their expectations; this implicit trust leads to customer loyalty thereby increasing chances of utilizing it more frequently. This result is largely because customer satisfaction has a direct bearing on consumer behavior. It stands out in research, alongside others like studies in this area (online or mobile shopping) which indicated that satisfaction would in turn lead to loyalty levels as well as usage frequency among consumers. Customer satisfaction is the outcome of positive experiences, and these experiences strengthen the continuance intention. Satisfied customers tend to seek the same experience again and prefer a reliable application. Therefore, enhancing customer satisfaction in mobile grocery applications is seen as a critical strategy for building user loyalty and increasing continuance rates.

These outcomes explicitly underscore the significance of atmosphere and other UX-related factors for mobile grocery application design by showing that the linkages between mobile grocery application atmosphere, customer satisfaction, and continuance intention are powerful and significant. It is clear that the atmosphere in the mobile grocery applications can improve both non-utilitarian and practical user experiences, thus increasing their satisfaction levels and subsequently their continuance intention. The impact of atmosphere on continuance intention through customer satisfaction is one of the key factors ensuring the sustainability of the application's success.

A summary of previous research supporting or complementing the findings of the study is presented in Table 10.

**Table 10.** Summary of Previous Research

Author (Year)	Findings	Similarities/Differences
Ercan & Alagöz (2014)	Store environment positively affects hedonic shopping experiences, making shopping pleasurable.	Confirms our finding that atmosphere positively influences hedonic experience in mobile grocery applications.

Continuation of Table 10

Author (Year)	Findings	Similarities/Differences
Muhammad, Musa, & Ali (2014)	Store design and social factors are important determinants of shoppers' hedonic experiences.	Aligns with our results showing the importance of atmosphere in shaping hedonic experiences.
Alzayat and Lee (2021)	A virtual store's atmosphere significantly influences the consumer's utilitarian (pragmatic) experience.	Supports our finding of atmosphere's positive effect on pragmatic experience in mobile grocery apps.
Pizzi, Scarpi, Pichierri, and Vannucci (2019)	Hedonic and utilitarian values enhance the online store atmosphere.	Confirms the importance of both hedonic and pragmatic aspects in digital shopping environments.
Lorenzo-Romero, Gómez-Borja, and Molla-Descals (2011)	Store atmosphere contributes greatly to the pragmatic experience in online shopping.	Aligns with our findings on the impact of atmosphere on pragmatic experience in mobile apps.
Abrar et al. (2017)	Internet store ambiance affects customer satisfaction and return intentions.	Supports our finding of atmosphere's impact on customer satisfaction in mobile grocery apps.
Gullu et al. (2021)	Virtual store atmosphere elements significantly affect customer satisfaction in online shopping.	Confirms our results on the importance of atmosphere in customer satisfaction for digital shopping environments.
Jalil, Fikry & Zainuddin (2016)	Strong positive significant impact of store atmosphere on customer satisfaction.	Aligns with our findings on the relationship between the atmosphere and customer satisfaction in mobile apps.
Ha & Lennon (2010)	Website atmospheric cues significantly influence consumer satisfaction.	Supports our results on the importance of a digital atmosphere in customer satisfaction.
Elibol (2023)	Virtual store atmospheres positively and significantly influence online repurchase intentions.	Aligns with our finding that atmosphere influences continuance intention in mobile grocery apps.
Can and Yiğit (2018)	Slight connection between hedonic experiences and shopping satisfaction.	Supports our finding of a weak but significant relationship between hedonic experience and customer satisfaction.
Doğan and Burucuoğlu (2018)	Customer satisfaction is the strongest determinant of user intention in reusing mobile banking services.	Aligns with our finding that customer satisfaction strongly influences continuance intention in mobile grocery apps.
Shin et al. (2013)	Satisfied customers are more likely to choose the same mobile app again for shopping needs.	Supports our finding on the relationship between customer satisfaction and continuance intention in mobile grocery apps.
Sun (2019)	Users tend to return when the virtual store atmosphere is considered.	Supports our finding that atmosphere influences continuance intention in mobile grocery apps.

*Continuation of Table 10*

Author (Year)	Findings	Similarities/Differences
Aron (2006)	Customer satisfaction with the mobile store application experience increases the likelihood of developing positive attitudes towards it for future purchases.	Aligns with our findings on the relationship between customer satisfaction and continuance intention in mobile grocery apps.
Kement (2019)	Customer satisfaction with the mobile store application experience increases the likelihood of developing positive attitudes towards it for future purchases.	Supports our results on the connection between customer satisfaction and continuance intention in mobile grocery apps.



## 6. CONCLUSION

### 6.1. Academic Implications

The study contributes to the literature by adapting and applying the atmosphere scale to the context of mobile grocery applications. In this digital environment, the study tested and validated the user experience construct. It investigated the consequence of digital atmospheres on consumer behavior within mobile commerce by studying the relationships among mobile grocery application atmosphere, user experience - hedonic and pragmatic dimensions - customer satisfaction, and continuance intention. The findings thus provide empirical support for the application of the S-O-R model in the context of mobile grocery shopping and may set a starting point for future research into this fast-growing field. The methodology and measurement tools of this study can also be useful resources for researchers when examining similar phenomena in other contexts of mobile applications.

### 6.2. Managerial Implications

One of the most critical factors that shape the experience on digital platforms is seen in terms of User Experience (UX). Both in physical stores' environments as well as e-commerce sites; store atmosphere has been identified as key points that influence perception and behavior by customers respectively. Customer satisfaction, as well as the desire for repeat usage, is significantly influenced by the mobile grocery application atmosphere, given that it impacts both pragmatic (functional) and hedonic (emotional and entertainment types). This can greatly tap into customer allegiance to the brand. The direct and indirect consequences of MSA on customer satisfaction and continuance intention are shown in our findings. Our research findings support the conclusion that positive effects exist between mobile grocery application atmosphere and hedonic as well as pragmatic experiences. When engaging with mobile grocery applications users can desire both fun and usefulness. The design of the mobile grocery application atmosphere helps improve the functionality and usability of apps while also making them enjoyable. Consequently, the elements within it meeting such twofold requirements contribute highly towards improving the success rate of these platforms and keeping their customers loyal.

The results indicate that the mobile grocery application atmosphere has a strong impact on customer satisfaction, emphasizing its critical role in ensuring this satisfaction. The atmosphere created in grocery applications improves users' interactions with the application and increases their overall satisfaction with it, becoming a key factor in their continuance intention with the application. On the other hand, the effect of the customer experience's hedonic dimension on the mobile grocery application atmosphere

and customer satisfaction has been identified as weak but significant. Users expect not only functionality from applications but also an enjoyable and entertaining experience. This highlights the need for differentiation strategies in mobile grocery application platforms, particularly in highly competitive environments. Ignoring hedonic experiences can be a significant factor in whether users prefer the application again.

The results show that the impact of pragmatic experiences is relatively small. This indicates that users do not solely focus on functionality when evaluating mobile grocery applications; other factors, such as atmosphere and emotional experience, are also important. Therefore, not only the functional design of mobile grocery applications but also the atmosphere they offer is of great importance. Functionality alone may not be sufficient to ensure user loyalty. Our study found that customer satisfaction has a strong effect on users' intentions to continue the application. When customers are satisfied with a service, their likelihood of using it again increases significantly. Particularly in mobile applications, the level of satisfaction leads users to regularly prefer the application. This finding highlights the critical role of customer satisfaction in the long-term success of grocery applications.

The atmosphere has a strong indirect effect on users' continuance intention through customer satisfaction. The mobile grocery application atmosphere enhances user satisfaction, thereby reinforcing their tendency to continue the application. Thus, careful and user-centered approaches should be adopted in atmosphere design. The fact that the atmosphere is an element that enhances customer satisfaction and supports continuance intention necessitates a strategic approach in application design. The effect of customer satisfaction on the intention for continuous use is a critical factor for the long-term success of applications. Satisfied customers are more likely to continue the application, thereby increasing customer loyalty and repeat purchases. Our research shows that this relationship is particularly strong in the context of mobile grocery applications. Continuously monitoring and improving elements that enhance customer satisfaction will contribute to keeping the application competitive.

The atmosphere of a mobile grocery application plays a pivotal role in shaping customer satisfaction and continuance intention. Our findings highlight that the atmosphere exerts a strong indirect effect on users' continued use of the application, mediated by customer satisfaction. This suggests that atmosphere design should not be overlooked; rather, it should be approached strategically with a user-centered focus. Key atmosphere elements such as layout, product variety, categorization, and aesthetic elements significantly contribute to the overall user experience. For instance, the way products are categorized in the application can vary between platforms. A well-structured and intuitive categorization system can make the shopping experience more enjoyable, thereby enhancing both hedonism (the pleasure users derive from using the app) and customer satisfaction. Properly organized categories help users find what

they need quickly and efficiently, fostering a positive emotional response and increasing the likelihood of repeat usage.

In addition to product variety and categorization, aesthetic considerations are crucial. The choice of colors within the app can significantly influence user emotions. For example, calm and soothing colors like soft blues and greens can create a relaxed atmosphere, while brighter, more vibrant colors like oranges or reds may evoke excitement or urgency, making the user feel engaged. However, it's important to strike a balance—overly stimulating colors can detract from the experience. Moreover, the size of text and spacing between visuals can impact the ease of navigation and readability, especially for older users. Well-spaced and appropriately sized fonts ensure that information is easy to consume, reducing cognitive load and frustration. Images and visuals should also be clear and not overcrowded; sufficient space between items allows users to focus on each product individually, creating a more pleasant and less overwhelming experience. Additionally, personalization in layout could further enhance satisfaction. For instance, offering users the option to rearrange the app layout according to their preferences (such as displaying frequently purchased items prominently) would foster a sense of control and personalization, reinforcing both satisfaction and the intention to continue using the application. Similarly, offering variety in product displays—such as highlighting new or seasonal products—can maintain user interest and encourage exploration within the app.

These user-centered design strategies highlight the importance of continuously monitoring and improving the application's atmosphere. By refining these elements, mobile grocery applications can not only enhance customer satisfaction but also foster long-term engagement, customer loyalty, and repeat purchases. In sum, the design of the atmosphere, encompassing both visual and functional elements, is crucial for ensuring the app remains competitive in the market.

The research results indicate that the continuation intention of the participants is only slightly influenced by their pragmatic experiences. This outcome indicates that users have the ability to prioritize their satisfaction levels with respect to the emotional appeal and atmosphere of the mobile application over merely functional components. Subsequently, application designers must develop a user experience that both enhances users' satisfaction and is enjoyable, while simultaneously supplying fundamental functionality. In this situation, strategies that may be implemented include:

- Colors exert a considerable psychological influence on user experience. For instance, green and natural hues induce a calming impact. Incorporating these hues into the application helps conjure the notion of a vibrant marketplace in the user's imagination. Furthermore, alterations in hue within the program may embody seasonal motifs. These acts can enhance the mobile application's dynamic and pertinent experience for users.

- Gamification features can be crafted to enhance the hedonic experience. Games akin to the badge system employed in the Yemeksepeti application can motivate users to re-engage with the program and increase their purchasing frequency. Frequent access to the application may encourage consumers to explore new products or engage in promotional activities. Incentives to obtain badges or prizes serve as motivating factors for the user. Furthermore, exhibiting these badges on users' profiles and grading their achievements might enhance user loyalty.
- Customizing the buying experience for customers helps foster an emotional connection between the consumer and the program. Highlighting the "Most Purchased Product of the Month" on the mobile application interface or providing recommendations based on the user's previous purchases might incentivize user engagement.
- Users may be assigned objectives to accomplish straightforward tasks within the application to earn points or discount vouchers. Incorporating engaging and interactive gaming components can enhance user-application interaction. Moreover, incentivizing users who consistently buy throughout the month can stimulate recurrent purchasing behaviors among consumers.

### **6.3. Research Limitations**

This study investigated the effect of the application atmosphere offered to users for mobile market shopping on users' continuation intention. Although important findings were revealed in the study, there are some limitations to this study as in every study.

First of all, the sample of the study was limited to a certain user group. Therefore, the findings of this study cannot be generalized to all users. The experiences and expectations of individuals with different demographic characteristics may vary.

Secondly, the data used in this study were collected with self-report surveys. The responses given by users in the surveys may contain bias since they are based on their personal perceptions. It should be taken into account that there may be differences between the actual behaviors of users and their stated intentions.

Thirdly, the focus of the study is limited to the mobile application atmosphere only. Other factors affecting the user experience (price, product variety, application performance, etc.) were not examined within the scope of this study. Therefore, although the findings reveal the effects of the atmosphere, other variables that may affect user behavior were not taken into consideration.

Finally, the study was conducted in a certain period due to time constraints. Since user experiences may change over time, attitudes towards the application atmosphere may also differ in the long term. In this context, the robustness of these findings can be tested with longer-term and repeated studies.

#### **6.4. Further Research Directions**

This study provides a broad understanding of the role that atmosphere plays in mobile grocery applications, yet there remain several specific areas for further investigation. Future research could focus on the detailed examination of particular elements of the atmosphere, such as color schemes, product categorization systems, and layout design, and how these influence customer satisfaction and continuance intention in a more focused manner.

While this study highlighted the importance of color choices, future research could examine how specific colors (e.g., soothing vs. vibrant tones) directly affect user engagement, emotional responses, and purchasing behaviors. This could include experimental studies comparing user reactions to different color palettes in the same application. Another avenue for further research could be the exploration of how product categorization impacts not just satisfaction, but also the hedonic experience. Researchers could study whether clearer, more intuitive categories lead to quicker decision-making and increased pleasure in using the application, versus more complex or cluttered categorizations.

The layout of mobile applications is critical for ease of use. Future studies might focus on how specific layout elements—such as the spacing between product visuals, size of images, and overall structure—impact user navigation, cognitive load, and satisfaction. Additionally, testing the effectiveness of customizable layouts could provide insights into improving personalization features in digital applications. Research could also explore the effects of integrating more interactive features such as gamification, reward systems, or badges (similar to Yemeksepeti's badges). Studies could assess whether these elements drive higher engagement and loyalty over time, particularly in grocery shopping apps where user interaction is frequent but often transactional.

**Cross-Cultural Comparisons:** Given that user experience can be shaped by cultural factors, further research could explore whether the impact of atmospheric elements differs across various cultural or geographic contexts. This could involve cross-cultural comparisons to determine if certain elements, like colors or layout preferences, are universally effective or more culturally specific.

By focusing on these specific components, future research could provide deeper insights into how digital atmospheres can be optimized to maximize user satisfaction and continuance intention, contributing to more effective mobile application design.

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## APPENDIX

### App. 1. Questionnaire in Turkish

Bu soru formu, Marmara Üniversitesi Pazarlama (İngilizce) Anabilim Dalı'nda yürütülen Yüksek Lisans tez çalışması için hazırlanmıştır. Araştırmamız, " Mobil market uygulaması atmosferinin yeniden kullanım niyetine etkisi " üzerine odaklanmaktadır. Anket sorularının doğru veya yanlış cevabı yoktur. Vereceğiniz yanıtlar, kişisel olarak kullanılmayacak olup sadece bilimsel amaçlarla değerlendirilecektir. Çalışmanın geçerliliği; vereceğiniz yanıtların, gerçek düşüncelerinizi yansıttığı oranda mümkün olabilecektir. Bu sebeple, cevaplama sırasında göstereceğiniz özen ve desteklerinizden ötürü teşekkür ederiz.

## BİRİNCİ BÖLÜM

### Market Uygulamalarına Yönelik Sorular

1. Mobil Market Uygulamalarından Ne Sıklıkla Alışveriş Yaparsınız?

- Her gün
- Haftada birkaç defa
- Haftada bir defa
- Ayda birkaç defa
- Ayda bir defa ya da daha az

2. Aylık Alışverişinizin Yaklaşık Ne Kadarını Mobil Uygulamalardan Yaparsınız (Yüzdeler Olarak Belirtin) \_\_\_\_

3. En Son Hangi Mobil Market Uygulamasını Kullandınız?

- Getir
- Migros: Sanal Market
- İstegelsin

- Trendyol Market
- Yemek Sepeti Market
- Cepte Şok
- A101 Kapıda
- Diğer (Belirtiniz) \_\_

4. Belirttiğiniz Uygulamadan En Son Ne Zaman Alışveriş Yaptınız?

- Son Bir Gün İçinde
- Son Bir Hafta içinde
- Son Bir Ay içinde
- Son Üç Ay İçinde
- Son 6 Ay İçinde

Belirttiğiniz uygulamayı düşünerek aşağıda yer alan ifadelere katılım düzeyinizi 1 (Kesinlikle Katılmıyorum) – 5 (Kesinlikle Katılıyorum) aralığında belirtiniz.

## İKİNCİ BÖLÜM

### Mobil Market Uygulaması Atmosferi Ölçeği

	Hiç katılmıyorum (1)	Katılmıyorum (2)	Ne Katılıyorum Ne Katılmıyorum (3)	Katılıyorum (4)	Kesinlikle katılıyorum (5)
DF1. En son kullandığım mobil market uygulaması çekici bir karaktere sahiptir.					
DF2. En son kullandığım mobil market uygulamasında kullanılan renkler ilgi çekicidir.					
DF3. En son kullandığım mobil market uygulaması her şeyiyle dikkat çekicidir.					

L1. En son kullandığım mobil market uygulaması aradığım ürünü bulmamı kolaylaştıracak şekilde tasarlanmıştır.					
L2. En son kullandığım mobil market uygulamasının tasarımı rahatça gezinti yapmama imkân verir.					
V1. En son kullandığım mobil market uygulamasında sunulan ürün çeşitliliği benim için yeterlidir.					
V2. En son kullandığım mobil market uygulamasında bol ürün alternatifi vardır.					
V3. En son kullandığım mobil market uygulamasındaki ürün çeşitliliğinden keyif alırım.					

### ÜÇÜNCÜ BÖLÜM

	Kullanıcı Deneyimi	1-7
	<b>UE1</b>	Engelleyici - Destekleyici
	<b>UE2</b>	Karmaşık - Sade
	<b>UE3</b>	Verimsiz - Verimli
	<b>UE4</b>	Kafa karıştırıcı - Açık
	<b>UE5</b>	Sıkıcı - Heyecan verici
	<b>UE6</b>	İlginç olmayan - İlginç
	<b>UE7</b>	Geleneksel – Özgün
	<b>UE8</b>	Alışıldık – Eşi Görülmedik

### DÖRDÜNCÜ BÖLÜM

#### Müşteri Memnuniyeti Ölçeği

*(Bu bölümde, en son yaptığınız mobil market alışverişten memnuniyetinize en uygun seçeneği işaretleyiniz).*

	Hiç katılmıyorum (1)	Katılmıyorum (2)	Ne Katılmıyorum Ne Katılmıyorum	Katılmıyorum (4)	Kesinlikle katılmıyorum (5)
CS1. En son kullandığım mobil market uygulaması, alışveriş ihtiyaçlarımı karşıladı.					

CS2. En son kullandığım mobil market uygulaması, alışveriş beklentilerimi karşıladı.					
CS3. En son kullandığım mobil market uygulamasını beğendim.					
CS4. En son kullandığım mobil market uygulaması oldukça kalitelidir.					
CS5. Genel olarak en son kullandığım mobil market uygulaması beni memnun etti.					

## BEŞİNCİ BÖLÜM

### Tekrar Kullanım Niyeti Ölçeği

*(Bu bölümde, en son yaptığınız mobil market alışverişinize en uygun seçeneği işaretleyiniz).*

	Hiç katılmıyorum (1)	Katılmıyorum (2)	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum (4)	Kesinlikle katılıyorum (5)
CIU. Bu mobil market uygulamasını düzenli alışverişim için kullanmaya devam etmeyi düşünüyorum.					
CIU2. Bu mobil market uygulamasını alışveriş ihtiyaçlarım için kullanmaya devam etmeyi düşünüyorum.					
CIU3. Bu mobil market uygulamasını alışverişimin daha fazlası için kullanmaya devam etmeyi düşünüyorum.					

## ALTINCI BÖLÜM

### Demografik Bilgiler

1. Cinsiyetiniz:

- Kadın       Erkek       Belirtmek İstemiyorum

2. Yaşınız:

- \_\_\_ (açık uçlu)

3. Eğitiminiz:

- Lise mezunu ya da altı  
 Önlisans Öğrencisi  
 Önlisans Mezunu  
 Lisans Öğrencisi  
 Lisans Mezunu  
 Lisansüstü/Doktora Öğrencisi  
 Lisansüstü/Doktora Mezunu

4. Yaşadığınız İl

- \_\_\_ (açık uçlu)

5. Geliriniz (aylık):

- 17.000 TL ve altı  
 17.001 TL – 19.000 TL arasında  
 19.001 TL – 64.000 TL arasında  
 64.001 TL ve üstü

## **App. 2. Questionnaire in English**

This questionnaire was prepared for the Master's thesis study carried out at Marmara University Marketing (English) Department. Our research focuses on "The effect of mobile market application atmosphere on continuance intention". There are no right or wrong answers to survey questions. Your answers will not be used personally and will only be evaluated for scientific purposes. Validity of the study; This will be possible to the extent that the answers you give reflect your true thoughts. For this reason, we thank you for your care and support while answering.

### **FIRST SECTION**

#### **Questions Regarding Mobile Grocery Applications**

1. How Often Do You Shop From Mobile Grocery Applications?

- Everyday
- Few times a week
- Once a week
- Few times a month
- Once a month or less

2. What percentage of your monthly shopping do you make through mobile applications? (Please specify as a percentage): \_\_\_\_\_

3. Which mobile market application did you use most recently?

- Getir
- Migros: Sanal Market
- İstegelsin
- Trendyol Market
- Yemek Sepeti Market
- Cepte Şok
- A101 Kapıda

- Others (Please specify) \_\_

4. When did you last shop using the application you mentioned?

- Within the last day
- Within the last week
- Within the last month
- Within the last three months
- Within the last six months

Please indicate your level of agreement with the statements below regarding the application you mentioned, on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree).

**SECOND SECTION**

**Mobil Grocery Application Atmosphere Scale**

	Strongly Disagree (1)	Disagree (2)	Neither Agree Nor Disagree (3)	Agree (4)	Strongly Agree (5)
DF1. The mobile market application I use for shopping has an attractive character.					
DF2. The colors used in the mobile market application where I shop are interesting.					
DF3. The mobile market application I use for shopping is remarkable in every way.					
L1. The mobile market application I shop on is designed to make it easier for me to find the product I'm looking for.					

L2. The design of the mobile market application where I shop allows me to surf easily.					
V1. The variety of products offered in the application is sufficient for me.					
V2. This application has plenty of product alternatives.					
V3. I enjoy the variety of products in this app.					

### THIRD SECTION

#### Customer Satisfaction Scale

*(In this section, select the option that best suits your satisfaction with your last mobile grocery shopping).*

	Strongly Disagree (1)	Disagree (2)	Neither Agree Nor Disagree (3)	Agree (4)	Strongly Agree (5)
CS1. The grocery delivery app I used last time fulfilled my needs.					
CS2. The grocery delivery app I used last time fulfilled my expectations.					
CS3. I liked the grocery delivery app I used last time.					
CS4. The grocery delivery app I used last time is of high quality.					
CS5. Overall, I am satisfied with the grocery delivery app I used last time.					

#### FOURTH SECTION

##### User Experience Scale

	User Experience	1-7
	<u>UE1</u>	Obstructive- Supportive
	<u>UE2</u>	Complicated- Easy
	<u>UE3</u>	Inefficient- Efficient
	<u>UE4</u>	Confusing - Clear
	<u>UE5</u>	Boring - Exciting
	<u>UE6</u>	Not interesting - Interesting
	<u>UE7</u>	Conventional - Inventive
	<u>UE8</u>	Usual - Leading Edge

#### FIFTH SECTION

##### Continuance Intention to Use

*(In this section, select the option that best suits your last mobile grocery shopping).*

	Strongly Disagree (1)	Disagree (2)	Neither Agree Nor Disagree (3)	Agree (4)	Strongly Agree (5)
CIU. I intend to continue using this mobile market application for my regular shopping.					
CIU. I intend to continue using this mobile market application for my shopping needs.					
CIU. I intend to continue using this mobile market application for more of my shopping.					

#### SIXTH SECTION

##### Demographic Questions

1. Gender

- Woman       Man       Prefer to not say

2. Age:

\_\_\_\_

3. Education:

Highschool degree or below

Undergraduate Student

Associate Degree

Bachelor Student

Bachelor Degree

Postgraduate/ PHD Student

Postgraduate /PhD degree

4. City:

\_\_\_\_

5. Income (per month):

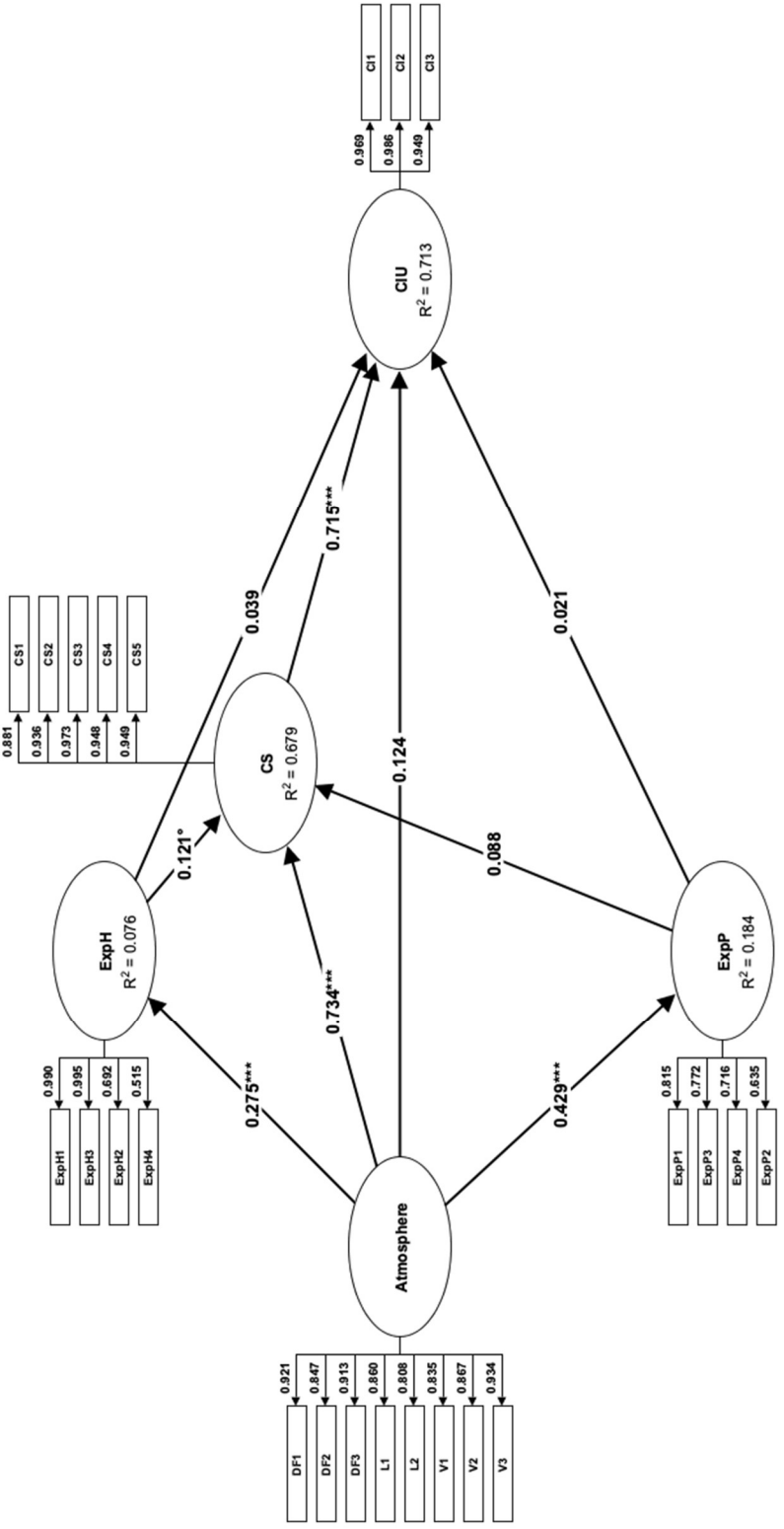
17.000 TL and below

Between 7.001 TL – 19.000 TL

Between 19.001 TL – 64.000 TL

64.001 TL and above

**App. 3. Path Analysis of The Model**



Source: Developed by the researcher.