ONLINE GROCERY SHOPPING BEHAVIOR WITHIN

THE THEORY OF PLANNED BEHAVIOR: COMPARISON BETWEEN

TURKEY AND UK

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DECLARATION OF ORIGINALITY

I, Fatih Çağlar Koç, certify that

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ABSTRACT

Online Grocery Shopping Behavior Within
The Theory of Planned Behavior: Comparison Between Turkey and UK

Online grocery shopping has been a significantly growing industry under e-commerce by changing customer behavior, especially after the Covid-19 pandemic. As the transition of grocery shopping from brick-and-mortar stores to online channels has progressed, it has become essential to understand customer behavior. In this context, we first aimed to understand factors that affect customers' online grocery shopping behavior. The theory of planned behavior was employed to determine these factors. The conceptual framework was also extended by different constructs in light of previous studies. The effects of attitude, subjective norm, perceived behavioral control, perceived usefulness, perceived ease of use, and perceived risk were assessed to understand the buying intention and behavior. This paper also aimed to understand how these constructs may differ between customers in developed and developing countries since no studies have been found comparing customers in different regions. In this context, the UK and Turkey were chosen as representative countries. An online survey was prepared, and data were collected from 231 respondents from Turkey and 224 from the UK and analyzed employing regression and T-Tests analyses. Findings indicated that all the mentioned constructs except perceived risk significantly affected the purchase intention. Among them, the attitude was observed to be the dimension with the largest effect. It was also found that customers in Turkey find online grocery shopping more useful and less risky than those in the UK and perceive a higher level of control over the purchase process.

ÖZET

Planlı Davranış Teorisi Bünyesinde Online Market Alışverişi Davranışı:

Türkiye ile Birleşik Krallık Karşılaştırması

Online market alışverişi, özellikle Covid-19 pandemisinden sonra değişen müşteri davranışları ile e-ticaret bünyesinde önemli derecede büyüme sağlamış bir sektör olmuştur. Market alışverişinin fiziksel mağazalardan çevrimiçi kanallara geçişi ilerledikçe, müşteri davranışlarını anlamak önemli hale gelmiştir. Bu bağlamda, öncelikle müşterilerin online market alışverişi davranışını etkileyen faktörleri anlamayı amaçladık. Bu faktörleri belirlemek için planlı davranış teorisi kullanılmıştır. Oluşturulan kavramsal çerçeve geçmiş çalışmaların ışığında farklı faktörlerle genişletilmiştir. Tutum, öznel norm, algılanan davranışsal kontrol, algılanan kullanışlılık, algılanan kullanım kolaylığı ve algılanan riskin etkileri, satın alma niyeti ve davranışını anlayabilmek için değerlendirilmiştir. Bu çalışma ayrıca, farklı bölgelerdeki müşterileri karşılaştıran herhangi bir çalışma bulunamadığından, bu faktörlerin gelişmiş ve gelişmekte olan ülkelerdeki müşteriler arasında nasıl farklılık gösterebileceğini anlamayı amaçlamıştır. Bu bağlamda, İngiltere ve Türkiye temsili ülkeler olarak seçilmiştir. Online bir anket hazırlanmış, Türkiye'den 231 ve Birleşik Krallık'tan 224 katılımcıdan veri toplanmış ve toplanan bu veriler regresyon ve T-Testi analizleri kullanılarak analiz edilmiştir. Bulgular, algılanan risk dışındaki tüm faktörlerin satın alma niyetini önemli ölçüde etkilediğini göstermiştir. Bunlar arasında tutumun en büyük etkiye sahip faktör olduğu görülmüştür. Ayrıca, Türkiye'deki müşterilerin online market alışverişini İngiltere'dekilere kıyasla daha kullanışlı ve daha az riskli buldukları ve satın alma süreci üzerinde daha yüksek düzeyde kontrol algıladıkları tespit edilmiştir.

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Dedicated to my beloved wife; Betül

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CHAPTER 1

INTRODUCTION

Electronic commerce has rapidly emerged in recent years as an influential phenomenon by revolutionizing how people live, work and shop through cutting-edge technologies. As Taher (2021) notes, electronic commerce has become increasingly popular worldwide for its convenience, making it the fastest growing retail market. According to the report of Morgan Stanley (2022), global electronic commerce sales represented 22% of all retail sales worldwide in 2022 and business analysts anticipate its market will see exponential growth by 2026 - rising from an estimated value of $3.3 trillion now up to around $5.4 trillion. The onset of the COVID-19 pandemic has further revved the growth of electronic commerce as customers are turning to online platforms to shop due to social distancing measures (Taher, 2021). The pandemic has also presented opportunities for businesses to integrate existing technologies and emerging customer behaviors into their business models to improve their operations (Gomes, Lopes & Oliveira, 2023). Companies that could adapt to these changes and integrate information and technology into their operations became more likely to succeed in the competitive market (Hendrawan & Zorigoo, 2019).

Pandemic impacts have not only altered individuals' lives but have had lasting repercussions for businesses as well. While this impact can be negative, for some businesses it has been dramatically positive. Online grocery retailers have been one of the most positive beneficiaries of this global crisis. In fact, online grocery services entered our lives long before the pandemic in the mid-1990s. But real aggressive growth took place during the pandemic. With online grocery services, customers reached the convenience of getting the food and beverages whenever and wherever they want, with just one click (Kapoor & Vij, 2018). The online grocery market is expected to experience rapid expansion by 2023, reaching an estimated value of $146 billion and 15.3% of the global grocery market (Grocery Doppio, 2023). Furthermore, the grocery delivery service market is projected to experience exponential growth by reaching up to $653 billion from 2023-2027 (Research and Markets, 2022). With this ever-increasing popularity comes an ever-greater need to understand factors that affect consumer behavior when purchasing goods online - studies have been undertaken recently to gain a better understanding and uncover reasons behind these behaviors as a result of these studies producing significant findings from these studies.

In order to understand the customer behavior of online grocery shopping, different marketing theories have been used in these studies. In particular, the theory of planned behavior, which is one of the most fundamental and accepted theories which examines the underlying reasons for purchase behavior, has been tested by many authors (Askar, 2020; Ping & Wider, 2022; Li & Ohlsson, 2017). In this paper, the Theory of planned behavior (Ajzen, 1991) has been employed as well to understand the underlying factors that affect purchase behavior and purchase intention towards online grocery shopping. In this context, attitudes towards online grocery shopping, subjective norm, and perceived behavioral control constructs that affect purchase behavior and purchase intention were examined.

Although TPB has been widely used in studies examining online grocery behaviors, some studies in the literature benefited from some other theories and factors as well. In these studies, perceived usefulness (Chin & Goh 2017; Askar, 2020), perceived ease of use (Bauerová & Klepek, 2018; Askar, 2020), and perceived risk (Hansen, 2006; Mortimer, Fazal e Hasan, Andrews & Martin, 2016) were found to have a significant effect on online grocery shopping, and therefore, TPB was extended by adding these constructs to the research model.

Even though the number of studies examining online grocery shopping has increased nowadays, to the best of our knowledge, all these studies have investigated only one market and have not investigated how these behaviors and their underlying reasons may change in different countries. However, there is a significant disparity in the adoption, implementation, and utilization of electronic commerce between developed and developing countries (Alyoubi, 2015). While developed countries have comprehensively gotten used to e-commerce, developing countries still aren't fully adapting to it (Kabango & Asa, 2015). Various reasons might cause these differences. Considering that online grocery shopping is also an area of digital commerce, it can be assumed that there may be differences in customers' behavior while buying groceries online according to the countries' development levels. Therefore, it should be considered that especially the differences in the development levels of countries may cause differences in the behavior and attitudes of customers in many ways. Researching and understanding the reasons underlying the behavior of customers in countries with different development levels will fill this gap in the literature and shed important light on the marketing activities of companies serving in this sector. In this context, we reached the research question of how the reasons underlying the online grocery behavior of customers can differ in developed and developing countries. In order to narrow the sample and make it measurable; the UK was chosen as a developed country since it was one of the first countries that adopted online grocery shopping as a service among developed countries. In terms of the developing countries, Turkey was chosen because it has introduced some important on-demand delivery service providers in recent years.

Within the scope of this research, a questionnaire was conducted in both countries, and the collected data were subjected to validity and reliability tests. After constructs were created by factor analysis, whether these constructs significantly affect purchase intention and behavior was measured by linear regression and then analyzed by T-test to determine whether these constructs differ between the two countries.

This study seeks to provide meaningful insights to online grocery retailers and marketers servicing in various markets regarding how they should approach their customers and how their customers' expectations may differ between different countries. In light of all these explanations, this paper will firstly examine the factors affecting customers' online grocery shopping behavior by utilizing the extended theory of planned behavior and, secondly, will research how these factors differ between Turkey as a developing country, and the UK as a developed country.

CHAPTER 2

LITERATURE REVIEW

2.1 E-commerce & online grocery

2.1.1 E-commerce

E-commerce (electronic commerce) defines the process of purchasing and selling or exchanging of goods and services via electronic networks, primarily the Internet (Liu, 2005). It has become a significant phenomenon in recent years by altering how people live, work, and shop due to advances in technology. Online shopping transactions can be carried out via online channels such as internet sites, applications for smart phones, social media platforms or other digital channels. E-commerce has revolutionized business and become widespread for individuals and companies over time by several factors.

E-commerce has experienced rapid expansion due to technological developments, shifting consumer behaviors and globalization. Mobile devices and the internet simplify the journey of online shopping, and in this way, businesses benefit by expanding their customer reach (Lee, 2001). The development of secure payment processing and logistics technology has also increased consumer confidence in online shopping, allowing companies to run more efficiently (Kotler, Keller, Ancarani & Costabile, 2014).

The convenience and the level of accessibility of e-commerce have also been noteworthy factors in its growth. The convenience of shopping from anywhere, like home or work, at any time, day or night, became a substantial factor in the development of e-commerce (Zott, Amit & Donleyy, 2000). Businesses can now operate around the clock, and consumers have more flexibility. In addition, e-commerce enables consumers to reach a broader range of goods and services that are not unavailable through traditional brick-and-mortar stores due to physical limitations (Bakos, 2001).

E-commerce allows companies to advertise and interact with their customers. Digital marketing and advertising techniques such as email marketing, search engine optimization (SEO), social media advertising, and other digital strategies have become essential for companies that want to be successful in the digital marketplace (Odden, 2012). These strategies allow businesses to reach a larger audience and target specific customer segments. E-commerce allows them to collect and analyze information on consumer preferences and buying patterns, as well as their behavior (Rosário & Raimundo, 2021).

E-commerce has grown and expanded thanks to these features. It has also branched out into other areas, like online grocery which has become an important business line around the world by incorporating all these mentioned features.

2.1.2 Online grocery shopping

Online grocery shopping allows consumers to purchase groceries, household products and other needs through mobile applications or websites instead of visiting physical stores directly. The process involves creating an online account, searching through products, choosing the desired items and selecting a time for delivery or pickup. Payment is made via the platform and groceries are delivered directly to the customer or available for pick-up at a designated place (Singh, 2019).

Online grocery shopping dates back to mid-1990s, when companies like Peapod and NetGrocer started offering online ordering of groceries and delivery (Ahmed, 2016). However, online grocery shopping was not mainstream until the early 2000s since the technology was not advanced enough, and there was no infrastructure in place for proper and efficient delivery. In the early 2000s, the online grocery industry gained traction as technology advanced and consumer attitudes toward e-commerce changed (Niu, 2009).

Over the years, online grocery shopping has become more popular and widely used, with the COVID-19 pandemic being a major catalyst for its growth. As people avoided going to physical stores due to safety concerns, many turned to online grocery shopping instead (Gruntkowski & Martinez, 2022).

It is forecasted that the online grocery industry will expand significantly in 2023, with an estimated value of $146 billion, accounting for 15.3% of the overall grocery market (Grocery Doppio, 2023). Moreover, the market for online grocery delivery services is expected to experience a substantial growth of $653 billion from 2023 to 2027 (Research and Markets, 2022).

While online grocery shopping spread globally, it developed at different scales in each country. Some have started using it early and progressed slowly, some have already adapted to this service, and some have grown rapidly despite starting late. This situation may vary according to the development level of the countries. For example, although Turkey started to use it as a developing country quite late, with the development of technology companies, it has started to spread, especially in metropolitan cities. Currently, Turkey has essential players in the global market. On the other hand, the United Kingdom was known as one of the first developed countries to utilize online grocery shopping. It has become an essential channel of customer preference for shopping for groceries in the UK. As will be discussed in the upcoming “Cross-country Implication” part, Turkey and UK markets have been chosen to examine how online grocery shopping behavior differs in developed and developing countries.

2.1.3 Online grocery shopping in Turkey and the UK

Online grocery shopping in both the UK and Turkey has taken different paths of development due to differences between their levels of economic and technological advancement. This may partially account for their respective disparate patterns of development.

Online grocery shopping in the UK has a much longer history and is more widely adopted than it is in Turkey. The first online grocery retailer in the UK, Tesco, launched its online shopping service in 1996 (Bourlakis, Papagiannidis & Fox, 2008). After that, the market grew steadily, and internet-based grocery shopping gained popularity in the United Kingdom through the contributions of major supermarket chains like Sainsbury's and Asdanow's online ordering and home delivery services (Allen, Piecyk & Piotrowska, 2018).

Online grocery shopping has taken a long time to catch on in Turkey, largely due to its developing economy and infrastructure. Although some companies, such as Migros or Carrefour, began providing online grocery services in the early 2000s, this industry only gained significant momentum by the mid-2010s (Statista, 2021). Turkey's current surge of growth within this space can be attributed to various factors. These include the growing popularity of e-commerce, the quick expansion of mobile internet utilization, and the entrance of new players such as Getir or Banabi into the market (Barış & Yılmaz, 2021).

For instance, Getir is a Turkish company founded in 2015 that has made significant strides toward expanding online grocery shopping services in Turkey. It also managed to grow into other European markets, including the United Kingdom. Nine countries are under its management, and operations are ongoing. Getir offers customers convenient and efficient on-demand service with an estimated delivery time of 10 minutes, so their customers are consistently delighted by this fast, hassle-free solution (Barış & Yılmaz, 2021).

2.2 Theory of Planned Behavior

The theory of planned behavior (TPB) is the extended version of the theory of reasoned action (TRA) which analysis the direct impact of customers' intentions on realized behavior and examines that intentions are affected by the attitudes and subjective norms customers have previous then the actual behavior (Fishbein & Ajzen, 1975). TPB extended the TRA and it demonstrates relationships between beliefs and behaviors by using three types of factors to shape consumers' purchasing intention and buying behavior: attitude, subjective norm, and perceived behavioral control (Ajzen, 1991).

TPB states that the attitude of a person towards behavior, their perception of social pressure, and their perceived control over behavior are all key factors that determine whether they will have a positive purchase intention or not. This intention is then a good predictor for whether or not the behavior will be performed. The behavioral intention is the amount of conscious exertion an individual should make to carry out a particular behavior.

Attitude:

The perception of a behavior is a person's positive or negative assessment of the behavior, which is shaped by their significant beliefs about the potential outcomes of engaging in it. The majority of the research regarding online shopping and utilizing the theory of planning behavior indicated that attitude toward online buying is the most influential determinant of purchase intention (Truong, 2009; Choi & Geistfeld, 2004). Moreover, the concept of attitudes can be segmented into two distinct aspects: hedonic and utilitarian aspects (Maehle, Iversen, Hem & Otners, 2015; Voss, Spangenberg & Grohmann, 2003).

The hedonic element is a consumer behavior that aims to achieve happiness, excitement, sensuality, and pleasure. Hedonistic shoppers enjoy shopping, and they do it because it is enjoyable. Hedonistic consumers are drawn to online shopping because it provides them with the same pleasure and enjoyment. Shopping is not merely a monotonous duty to be fulfilled (Bloch & Bruce, 1984; Babin, Darden & Griffin, 1994).

The utilitarian element is also linked to the usefulness of a product or service in terms of achieving practical goals. The utilitarian approach to shopping implies that it begins with an objective or purpose, and that the final gain depends on the success of the task as well as the efficiency in which it is completed (Babin, Darden & Griffin, 1994).

Subjective Norm:

The subjective norm element of TPB is rooted in normative beliefs and pertains to an individual's perception of whether significant individuals in their circle endorse or object to particular conduct. This means that subjective norm reflects people’s view of what their family members or friends might think if they engage in a particular behavior. (Ajzen, 1991). For instance, it is suggested that for online grocery shopping, some consumers who lack experience and knowledge in this area may be more inclined to purchase e-groceries if they observe their close social circle endorsing this method of shopping (Tsydybey & van Wijk, 2014). Different studies in the literature propose that consumers' tendency to use e-grocery services will be strongly influenced by their perceptions of social norms and their hedonic and utilitarian attitudes toward online grocery shopping.

Perceived Behavioral Control:

Perceived behavioral control refers to consumers' belief in their ability to control a specific behavior. The TPB incorporated this concept into TRA to account for scenarios in which consumers may not have full authority over their behavioral inclinations. Customers are likely to act on their intentions when they have a high degree of control over their behavior and find a suitable opportunity.

The primary aim of assessing perceived behavioral control is to forecast an individual's actual behavior (Ajzen, 1991). Measuring perceived behavioral control involves posing specific inquiries to individuals concerning their capacity to execute a particular behavior or handle factors that might hinder or facilitate the action in question. This method aids in gauging an individual's level of control over their behavior.

The level of perceived behavioral control is affected by various internal constituents and external constituents that either facilitate or hinder the behavior (Ajzen, 2002). The relation between actual behavior and perceived behavioral control is influenced by two factors. Firstly, studies have suggested that perceived behavioral control is positively associated with the likelihood of successful behavior outcomes. Secondly, perceived behavioral control can replace actual control, depending on how well the person perceives things (Ajzen, 1991).

Intention:

According to Ajzen (1991), intentions are the primary factors that affect behavior. Ajzen describes intention as the amount of effort and tenacity someone is prepared to put forth in order to carry out a specific activity. It measures the amount of effort individuals want to put out when engaging in the behavior (Ajzen, 1991). This assertion suggests that a person's intention is crucial in deciding how they behave. In order to accurately predict behavior based on intention, Ajzen (1985) suggested that the assessment of intention should coincide with the measurement of behavior. It has also been shown that people are more likely to engage in a certain behavior if their intention is stronger (Montano & Kasprzyk, 2015).

Two conditions are required to accurately predict behavior based on intention: the measure of intention should be taken just before the behavior, and the behavior must be under a person's control (Ajzen, 1985). Ajzen (2002) suggests that intentions are closely linked to immediate behavior. While intention is the main predictor of an individual's behavior, comprehending the underlying factors that affect these intentions is crucial for understanding the behavior itself. As explained earlier, the TPB suggests that an individual's intention is influenced by three key factors: their attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991).

Behavior:

Behavior is defined as an observable action, such as participating in a meeting or making a specific purchase at a retail store (Ajzen & Fishbein, 1977). It is crucial to distinguish between behavior and outcome. For instance, achieving high scores on exams cannot be considered a measure of behavior as it may result from various actions such as diligent studying and attending lectures (Ajzen, 1991). Ajzen (1980) proposes that behavior can be categorized into two types: positive and negative. Positive behavior involves performing an action. Negative behavior, on the other hand, is when the behavior isn't carried out.

2.2.1 Online grocery shopping within the Theory of Planned Behavior

Online grocery shopping has become a growing trend recently; therefore, many researchers have tried to explore the factors influencing consumers' intentions towards buying groceries online. Among these researches, The Theory of Planned Behavior (TPB) has been frequently used as a theoretical framework to investigate these factors. TPB comprises three key dimensions: attitude, subjective norm, and perceived behavioral control. These dimensions affect intention, and intention influences purchase behavior.

Attitude

Studies have shown that the attitude of consumers toward online grocery shopping has a significant impact on their decision to purchase groceries online (Hansen, 2008; Li & Ohlsson, 2017; Blomqvist, Nyman & Lennartsson, 2015; Ruivos, 2022; Loketkrawee & Bhatiasevi, 2018). Hansen (2005) discovered that online grocery shoppers have a positive attitude toward online shopping. Li & Ohlsson (2017) found in 2017 that the attitude component was the most influential factor on the intention of Swedish consumers to buy grocery products online. Another study found that positive attitudes and the intention to buy groceries online are strongly correlated (Blomqvist, Nyman & Lennartsson, 2015). Askar (2020) found that consumers' attitudes toward online shopping were the most important factor in influencing their online grocery purchases. In line with these contributions, the first research hypothesis of this study is as follows:

H_1 : Attitude is positively related to purchase intention within online grocery shopping in both Turkey and the UK.

Subjective Norm

Subjective norm refers to the influence of other people's opinions and behaviors on individuals' intention to purchase groceries online. Noor, Noranee, Zakaria, Unin & Suaee (2020) revealed that the subjective norm has the biggest influence on the purchase intention of online shopping among the TPB dimensions. Driediger & Bhatiasevi (2019) and Li & Ohlsson (2017) also found that social influence positively affects consumers' purchase intentions for online grocery, while Askar (2020) identified social influence as the least influential factor for online grocery shopping in the UAE. Moreover, some of the previous research (Blomqvist, Nyman & Lennartsson, 2015; Sutisna & Handra, 2022; Peña-García, Gil-Saura, Rodríguez-Orejuela & Siqueira-Junior, 2020) found subjective norm as insignificant determinant of purchase intention.

Some research gets into more detail and found that the social aspects of food and cuisine make grocery retailing unique compared to other retail sectors since food is often chosen for other people, such as family and colleagues, based on factors like health, taste, and price (Hogreve, Matta, Hettich & Reczek, 2021; Hansen, Jensen & Solgaard, 2004). Following the existing literature, the defined research hypothesis is:

H_2 : Subjective Norm is positively related to purchase intention within online grocery shopping in both Turkey and the UK.

Perceived Behavioral Control

Perceived behavioral control refers to individuals' beliefs about their ability to perform a behavior. It is found that perceived behavioral control can influence both buying intention and directly the behavior. Ruivos (2022) found that perceived behavioral control significantly impacted Portuguese consumers' intentions to purchase groceries online. Perceived behavioral control was also found to be the most influential factor in internet shopping (Laohapensang, 2009) and can influence purchase intention positively and significantly (Noor et al., 2020). Hsu, Yen, Chiu & Chang (2006) also showed that perceived behavioral control was essential to online shopping continuance intention. In terms of the construct of perceived behavioral control’s direct effect on buying behavior, Javadi, Dolatabadi, Nourbakhsh, Poursaeedi & Asadollahi (2012) found no correlation. Building on these findings, research hypotheses are posited as:

H_3 *: Perceived Behavioural Control is positively related to purchase intention within online grocery shopping in both Turkey and the UK.*

H_4 *: Perceived Behavioural Control is positively related to purchase behaviour of online grocery shopping in both Turkey and the UK.*

Intention

According to Ajzen (1991), the primary driving force behind human behavior is behavioral intention. Pavlou and Fygenson (2006) suggest that predicting behavior based on intention is the most effective approach since people generally follow through with their intentions. This idea is supported by multiple studies that have found a positive correlation between a buyer's purchasing intentions and their future purchasing behavior in online grocery shopping (Driediger & Bhatiasevi, 2019;

Hansen, 2008). Consistent with this, the subsequent research hypothesis is formulated as:

H_5: Intention is positively related to purchase behaviour of online grocery shopping in both Turkey and the UK.

2.2.2 Extending TPB

Although TPB has been widely used in studies examining online grocery behaviors, some studies in the literature have extended TPB and benefited from some other theories and factors. The Technology Acceptance Model has been a frequently applied theory alongside TPB.

The Technology Acceptance Model (TAM), developed by Davis in 1989 and later expanded upon by Davis, Bagozzi & Warshaw in 1989, explains and predicts potential users' acceptance of new technology through a causal relationship between belief, attitude, intention, and behavior. According to TAM, a person's attitude towards using new technology is determined by their beliefs about its perceived usefulness (PU) and perceived ease of use (PEOU). Previous research also showed that perceived risk (PR) is another behavioral construct that affects the intention to purchase online groceries.

Perceived Usefulness

Perceived usefulness means the degree to which a person thinks that utilizing the technology will enhance their efficiency (Davis, 1989; Davis, 1993). Lim & Ting (2012) and Sohn (2017) suggest that PU may influence the attitude and behavioral intention to use technology and influence online purchase decisions. Chin & Goh (2017) also found significant positive relation between perceived usefulness and

attitude towards online grocery shopping. In the literature, PU as a term is perceived differently by researchers, and the criteria for measuring PU is different as well, there are different dimensions of PU such as cost savings (Choi, 2013; Cho & Sagynov, 2015), time saving (Choi, 2013; Kim, Ferrin & Rao, 2008), and convenience (Ahuja, Gupta & Raman, 2003; Morganosky & Cude, 2000; Pechtl, 2003; Choi, 2013).
Based on previous studies, the following research hypotheses are established:

H_6*: PU is positively related to attitude within online grocery shopping in both Turkey and the UK.*

H_7 *: PU is positively related to purchase intention within online grocery shopping in both Turkey and the UK.*

Perceived Ease of Use

Perceived ease of use indicates the level at which a person believes using the technology will require minimal effort (Davis, 1989; Davis, 1993). Studies conducted by Islam & Daud (2011), as well as Bauerová & Klepek (2018), have demonstrated that there is a favorable association between perceived ease of use (PEOU) and consumers' intentions to purchase, as well as their attitude to use the Internet for online shopping. Accordingly, the following research hypotheses are defined in accordance with the existing literature:

H_8 *: PEOU is positively related to attitude within online grocery shopping in both Turkey and the UK.*

H_9 *: PEOU is positively related to purchase intention within online grocery shopping in both Turkey and the UK.*

Perceived Risk

Oglethorpe & Monroe (1994) explains perceived risk as the personal perception of a consumer that there is a chance that a particular decision may result in an unfavorable consequence. Perceived risk has been accepted as one of the crucial factors affecting customers' online shopping behavior in the literature (Bhatti, Saad & Gbadebo, 2018; Habib & Hamadneh, 2021; Mortimer et al., 2016; Gruntkowski & Martinez, 2022; Hansen, 2006). Online grocery shopping involves several dimensions of risk, including privacy and consumer data confidentiality, security, and financial-related, product-related, and customer service-related risks. These risks can affect consumers' perceived risk and their willingness to engage in online shopping (Askar, 2020). On the other hand, there are also studies like Tyrväinen & Karjaluoto (2022), which contradict this mainstream and found perceived risk as an insignificant determinant of purchase intention. As a result, the final research hypothesis for this section can be articulated as:

H_{10} *: Perception of risk is negatively related to purchase intention to online grocery shopping in both Turkey and the UK.*

2.2.3 Cross-country implication

Although several studies have utilized the TPB and its extensions to explore the determinants of OGS behavior, the majority of them have focused on a single country or region. To give an example, studies by Li & Ohlsson (2017) and Blomqvist, Nyman & Lennartsson (2015) explored the factors affecting OGS in Sweden. Similarly, studies by Ruivos (2022), Askar (2020), Ping & Wider (2022), and Al Nawayseh & Balachandran (2012) investigated OGS behavior in Portugal, UAE, Singapore, and Jordan, respectively. However, to the best of our knowledge, no prior studies have compared OGS behavior in developed and developing countries using the TPB framework.

In a comprehensive literature review, Hassan, Shiu & Parry (2016) examined the cross-country applicability of the TPB and noted that several studies had confirmed the theory's validity across cross-country contexts. However, there is no study comparing two different countries by employing TPB.

Askar (2020) suggested that future studies should explore OGS behavior in different cultural contexts and races. Furthermore, Li & Ohlsson (2017) advised in their future recommendations to investigate the possible differences between developed and developing countries in the context of exploring OGS behavior by utilizing TPB.

Therefore, this study aims to address this gap by comparing the factors affecting OGS behavior and investigating if there is a significant difference between the UK and Turkey, representing a developed and a developing country, respectively.

2.3 Conceptual framework & hypotheses

2.3.1 Conceptual framework

Based on the literature and the theoretical background presented earlier, the traditional TPB constructs (AT, SN, PBC, I) were combined with the constructs of TAM and the construct of PR. Therefore, the following research model is proposed to measure consumers' online grocery shopping behavior.

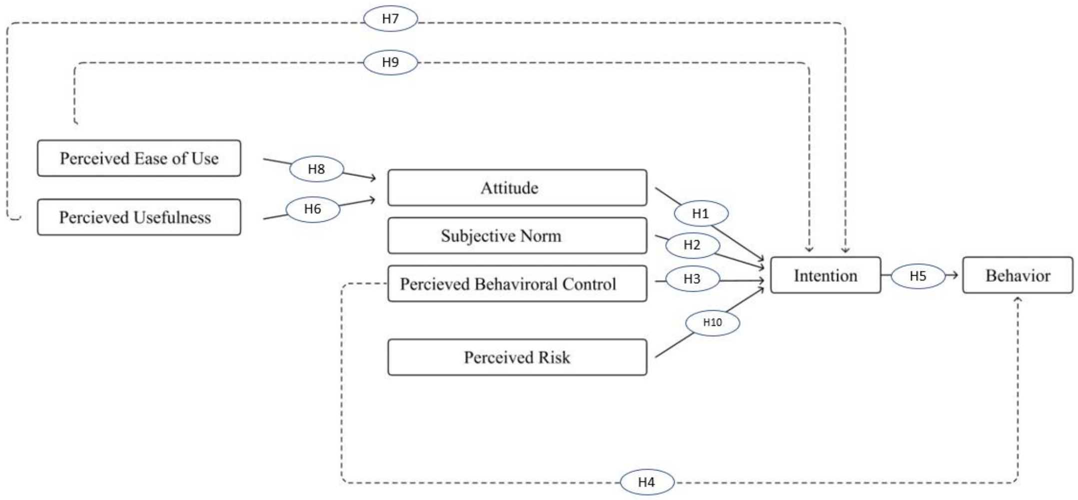

Figure 1. The research model on Extented Theory of Planned Behavior

2.3.2 Hypotheses

H_1*: Attitude is positively related to usage intention within online grocery shopping in both Turkey and the UK.*

H_2*: Subjective Norm is positively related to usage intention within online grocery shopping in both Turkey and the UK.*

H_3*: Perceived Behavioural Control is positively related to usage intention within online grocery shopping in both Turkey and the UK.*

H_4*: Perceived Behavioural Control is positively related to usage behaviour of online grocery shopping in both Turkey and the UK.*

H_5*: Intention is positively related to usage behaviour of online grocery shopping in both Turkey and the UK.*

H_6*: Perceived Usefulness is positively related to attitude within online grocery shopping in both Turkey and the UK.*

H_7*: Perceived Usefulness is positively related to usage intention within online grocery shopping in both Turkey and the UK.*

H_8: Perceived Ease of Use is positively related to attitude within online grocery shopping in both Turkey and the UK.

H_9: Perceived Ease of Use is positively related to usage intention within online grocery shopping in both Turkey and the UK.

H_{10}: Perception of risk is negatively related to usage intention to online shopping in both Turkey and the UK.

CHAPTER 3

METHODOLOGY

3.1 Research approach

Research studies could be typically categorized into three main types as quantitative, qualitative, or mixed methods. In this study, a quantitative method was used since it allows collecting a significant amount of information efficiently and time-effectively while also providing statistically valuable results. Quantitative research is concerned with measuring and analyzing variables in order to build results. This approach uses numerical data and specific statistical techniques to answer research questions. It also involves describing phenomena through the collection of data in numerical form. The different types of quantitative research methods include survey, correlational, experimental, and causal-comparative research (Apuke, 2017). This study used the survey method to reach respondents in Turkey and the UK.

Furthermore, quantitative studies generally use inductive or deductive approaches. In this paper, the deductive approach was utilized to answer the research questions because the field of study already contained established theories that could be used as a theoretical framework. This meant that before collecting primary data, the research developed a theoretical framework that laid out the premises and assumptions based on the existing theories.

The hypotheses developed in the research were based on the Theory of Planned Behavior (TPB) and other factors from the existing literature that extended TPB. These hypotheses were tested and analyzed by using the collected primary data. The data was utilized to convert statistical regularities into quantifiable variables and link them to theories to facilitate an examination of measurable results. By starting with existing theories under the deductive approach, the research was able to develop a framework that was grounded in prior knowledge and then systematically test and analyze the hypotheses derived from that framework.

3.2 Data collection

Both primary and secondary data were collected to accomplish the research objective fully. Secondary data was utilized to explore existing literature in the research field and enhance the research question. Databases like Proquest and JSTOR were employed to search the literature, and Google Scholar was also used to extend this research.

Primary data was collected through a questionnaire which was prepared in Google Forms. Subsequently, it is disseminated to participants via online channels. This method was chosen as it provides easy access to a large number of respondents for gathering responses.

3.3 Sampling

The age range of 18-45 was chosen as they can afford to shop online and represented the active and tech-savvy population who are likely to engage in online grocery shopping. This age group is more open to trying out new products and services, making them ideal for research on online grocery shopping.

A sample size at the amount of 231 for Turkey and 224 for the UK with total of 478 respondents are assumed sufficient to provide statistical significance. It also aligns with the five respondents to one statement rule, which determines the lowest acceptable number of respondents for a study (Pallant, 2020).

Convenience sampling and snowball sampling methods were employed to recruit participants from the UK and Turkey markets. Convenience sampling involves selecting readily available and accessible participants, such as through social media or personal contacts. Snowball sampling was utilized to recruit participants through referrals from existing participants. Both methods were used to ensure a diverse and representative sample.

These methods helped to expand the pool of potential participants, though convenience sampling can lead to biased samples. Snowball sampling was employed to mitigate this potential bias and recruit a diverse and representative sample of online grocery shoppers in both the UK and Turkey.

3.4 Questionnaire design

The questionnaire items were adapted from scales previously developed and validated for each of the seven constructs shown in Appendix A.

To measure attitude towards online grocery buying, four items were adapted from (Peña-García et al., 2020; Hansen, 2008) to evaluate the level of agreement with statements about the appeal of online grocery shopping as (1) I like to buy groceries in online platforms; (2) Buying groceries via the Internet is beneficial to me; (3) Electronic shopping of groceries is attractive to me in my daily life; and (4) Buying groceries via the Internet is well suited to the way in which I normally shop groceries.

Subjective norms were assessed using three items adapted from (Askar, 2020; Peña-García et al., 2020; Hansen, 2008) to gauge respondents' beliefs about what others think of online grocery shopping as (1) I will use online grocery shopping if the service is widely used by people in my community; (2) People who are important to me, believe I should buy groceries from online stores; and (3) Most of my friends and family think that shopping groceries via the Internet is a good idea.

Perceived Behavioral Control was measured by four items adapted from (Hansen, 2008; Peña-García et al., 2020) to assess the perceived complexity, and level of control over online grocery shopping as (1) In general, electronic shopping is very complex; (2) It is hard to find the needed products when shopping groceries via the Internet; (3) In general, electronic shopping of groceries yields few problems for me; and (4) The process of purchasing groceries online is entirely under my control.

Perceived Ease of Use was adapted from (Askar, 2020) and measured by three items as follows: (1) Online grocery shopping is easy-to-use; (2) My interaction with the processes of online grocery shopping is clear and understandable; (3) It is easy for me to follow the procedures when ordering groceries online.

Perceived Usefulness was evaluated using three items derived from (Askar, 2020) that measured the perceived benefits of utilizing online grocery shopping: (1) Using online grocery shopping can improve my efficiency in purchasing groceries; (2) Using online grocery shopping can save me a lot of time; (3) Using online grocery shopping is convenient for my grocery shopping.

Perceived Risk was assessed using three items adapted from (Askar, 2020) that measured possible concerns regarding product quality, payment security, and punctuality of delivery time as follows: (1) I am concerned with the quality of the products delivered when ordering from Online Grocery; (2) I am concerned with the payment security aspects of online grocery shopping; (3) I am concerned with the punctuality of the delivery time of online grocery shopping.

Finally, the intention was measured by obtaining the response to the following two items derived from (Hansen, 2008): (1) How likely is it that over the next 5 years you will shop for groceries via the Internet?; (2) How large a part of your grocery shopping do you intend to carry out via the Internet in 5 years from now?

All items, with the exception of intentions and social-demographic characteristics, were measured using Likert scales with endpoints '1: Strongly disagree, 7: Strongly agree'. Responses were measured for intentions via seven-point semantic scales from 1 (not likely at all) to 7 (very likely), for I1. For the second intention item (I2) response rates ranged between 1 (very unlikely) to 7 (very likely).

After the list of the items was prepared, the original version in English was translated into Turkish using the back-translation method. The Appendix contains a display of all the constructs and measurements both in Turkish and English that were used in the study.

3.5 Pretest

A pretest should aim to ensure the questionnaire provides clear instructions, statements, and questions covering all areas relevant in the search process. Specifically, its primary aim should be making content easy for respondents to comprehend (Bryman & Bell, 2015). Therefore, to confirm questions in the survey are easily understandable for respondents, five colleagues from Turkey and five from the UK who works in the marketing department of Getir, on-demand delivery company, took part in the pre-test. Their feedback regarding its clarity and comprehensibility was taken into consideration during final design processes.

Based on the pre-test results, additional definitions and explanations were added to the survey in order to reduce confusion and eliminate bias from future interpretations. As a result of the pre-test, grammar clarity and comprehensibility were all improved, making it easier for prospective participants to comprehend its contents.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Demographic

Respondents were requested to provide demographic data such as their age group, gender, educational level, and country of residence as well as the frequency of online grocery shopping. A total of 478 responses were received - 231 from Turkey, 224 from the UK, and 23 from other countries. Respondents residing in other countries were excluded from the sample, as only UK and Turkish markets were targeted in this research.

In terms of the sample's age distribution, the age group with the largest share of 65% was 25-34. 18-24 and 35-45 had a similar count of respondents, with 69 and 79, respectively. On the other hand, ten respondents marked above 45 were identified and excluded from the sample because they were outside the target population. After the reductions, the age groups of 18-24, 25-34, and 35-45 made up 16%, 67%, and 18% of the sample, respectively. In addition, the total number of respondents in Turkey decreased to 226 and in the UK to 219. In terms of country breakdown, UK and TR had similar age distributions in the sample.

The majority of the sample consisted of female respondents (57%). Men represented 42%. Those who did not specify their gender or were non-binary constituted less than 1% of the sample. The UK had a ten ppt higher share of female respondents at the country level than Turkey.

When respondents were asked about their household income levels, 6% of the total sample didn't prefer to answer. 53% of respondents in the UK have an annual household income above £45001, while 48% of respondents in Turkey have a monthly household income above ₺25.001 (top two brackets combined).

As the last question of the demographics section, participants were asked how often they shopped for groceries online. The results showed that 32% of respondents shop online once a week, while 23% do it once a month. Also, 21% of them shopped for groceries online twice a week, and the least represented group was that only 19 out of 445 respondents had never done any online groceries. Similar trends were observed in both countries.

Table 1. Demographics of the sample

		TR	UK	Total
Age	18-24	41	28	69
	25-34	157	140	297
	35-45	28	51	79
Gender	Female	138	116	254
	Male	86	100	186
	Non-Binary	1	3	4
	Prefer not to disclose	1		1
Education	Primary School	1	1	2
	High school	9	18	27
	Bachelor's degree	167	124	291
	Postgraduate	44	61	105
	Other	5	15	20
Household Income for UK	£0-20000		22	22
	£20001-30000		19	19
	£30001-45000		39	39
	£45001-60000		45	45
	Above £60000		70	70
	Prefer not to answer		24	24
Household Income for TR	₺0-8.500	13		13
	₺8.501-15.000	40		40
	₺15.001-25.000	60		60
	₺25.001-40.000	56		56
	Above ₺40.001	51		51
	Prefer not to answer	6		6
Online Grocery Shopping Frequency	Never	6	13	19
	Rarely	50	36	86
	Once a month	51	52	103
	Once a week	71	73	144
	Twice a Week	48	45	93
Total		226	219	445

4.2 Validity and reliability

4.2.1 Validity

Face and content validity methods were used in this research in light of the objective and methodology of this study. Face validity is a subjective assessment of whether a questionnaire is viewed to measure what it actually purports to measure. It checks the transparency and relevance at the first view. Whereas content validity assesses whether a questionnaire comprises all the facets of the construct being measured. To validate the questionnaire, both academic and industry experts were consulted. This included a professor from a prestigious university and marketing professionals from Getir.

4.2.2 Reliability

Cronbach's alpha was employed to assess the reliability of each construct within this study in terms of the reliability analysis. It is a commonly used measurement method to estimate the reliability of a measurement scale by assessing the degree to which items in a questionnaire are measuring the same construct. Seven constructs are determined in the research model section of this paper by using the theory of planned behavior and its extensions in the literature to understand online grocery shopping behavior. Items from four different academic resources that are explained in the "Questionnaire design" section are adapted in the questionnaire. Cronbach's alpha was used to evaluate the reliability levels of these constructs. An alpha coefficient can be between 0 to 1.00. It is widely admitted in the literature that constructs with an alpha value higher than 0.70 can be evaluated as reliable.

Each construct was evaluated separately and controlled their alpha values for both UK and Turkey. All the constructs showed reliable alpha figures higher than

.70, except for perceived usefulness and perceived behavioral control. In order to get valid scores, the item of PU1 was removed from the perceived usefulness construct, and the items of PBC3 and PBC4 were removed from the perceived behavioral control construct. After reduction, revised alpha values became higher than .70. The final result of Cronbach's alpha test can be seen in Table 2.

Table 2. Cronbach's Alpha Test results

	TR	UK
AT	.893	.925
SN	.816	.843
PBC	.805	.776
PEOU	.872	.870
PU	.899	.818
PR	.716	.749
I	.839	.801

The results indicate that the alpha coefficients of constructs across the UK and Turkey ranged from .716 to .925, which suggests that the items assessing each construct were highly correlated and thus are considered reliable.

Attitude (AT) had the highest alpha values by .893 and .925, for Turkey and the UK, respectively. The Cronbach's alpha values for subjective norm (SN) were (TR: .816 and UK: .843); perceived ease of use (PEOU) were (TR: .872 and .870); and intention (I) were (TR: .839 and .801). Perceived Usefulness (PU) and Perceived Behavioral Control (PBC) reached reliable levels of (TR: .899 and UK: .818) and

(TR: .805 and UK: .776), respectively. Perceived Risk (PR) had the lowest but still reliable alpha figures by (TR: .716 and UK: .749).

All these indicate that the items measuring each construct were highly correlated, which means the constructs are reliable in both countries.

4.3 Kaiser-Meyer-Olkin and Bartlett's test & Factor Analysis

The Kaiser-Meyer-Olkin (KMO) testing of sampling and Bartlett's test were executed to measure the data's suitability for factor analysis. The KMO measure of sampling adequacy is a statistical tool that evaluates whether a data set is suitable for factor analysis. On the other hand, Bartlett's test of sphericity measures if the variables in the population correlation matrix are independent, revealing that factor analysis would be appropriate.

KMO results can range from 0 to 1; values close to 1 indicate the data is suitable for factor analysis. As can be seen in Table 3, the KMO values were 0.879 for TR and 0.865 for the UK, which reveals substantial sampling adequacy of all the items chosen in the factor analysis. In addition, Bartlett's test generated significant results for both TR (approx. chi-square = 2599.840, df=171, p=0.000) and the UK (approx. chi-square = 2489.886, df=171, p=0.000), demonstrating factor analysis is appropriate.

Table 3. Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity results

		TR	UK
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.879	0.865
Bartlett's Test of Sphericity	Approx. Chi-Square	2599.840	2489.886
	df	171	171
	Sig.	0.000	0.000

Factor analysis is a commonly used statistical method to simplify complex data by identifying latent factors or dimensions that explain the variation among observed variables. This study conducted two-factor analyses, one for Turkish and one for UK samples. The factors that have eigenvalues greater than one were considered significant. The seven factors found explained 70% of the total variance for both countries, which is considered satisfactory in social sciences by higher than 60%. All items except PEOU3 and SN1 recorded significant factor loadings higher than .50, indicating a strong relationship between each item and its respective construct. PEOU3 and SN1 had factor loadings between .40 and .50 but maintained a strong relationship with their constructs due to the significant gap of higher than .20 between their primary and cross-loadings. Tables 4 and Table 5 present the factor loadings and variance explained for constructs in Turkey and the UK samples, respectively.

Table 4. Factor Analysis results for Turkey

Constructs & Items	Factor Loading	Variance Explained
Perceived Ease of Use		
PEOU2	0.963	31.3%
PEOU1	0.593	
PEOU3	0.438	
Intention		
I2	0.973	36.6%
I1	0.511	
Subjective Norm		
SN2	0.994	48.4%
SN3	0.586	
SN1	0.487	
Perceived Usefulness		
PU2	0.983	55.0%
PU3	0.725	
Perceived Behavioral Control		
PBC1	0.928	61.0%
PBC2	0.691	
Attitude		
AT2	0.778	65.6%
AT3	0.653	
AT1	0.648	
AT4	0.514	
Perceived Risk		
PR1	0.798	70.0%
PR3	0.649	
PR2	0.500	

Extraction Method: Maximum Likelihood Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

A Rotation converged in 8 iterations.

Scores < .40 are not included in the matrix for clarity purposes.

Table 5. Factor Analysis results for the United Kingdom

Constructs & Items	Factor Loading	Variance Explained
Perceived Usefulness		
PU3	1.006	22.5%
PU2	0.590	
Attitude		
AT3	0.915	40.5%
AT2	0.751	
AT1	0.677	
AT4	0.638	
Perceived Behavioral Control		
PBC2	0.934	51.3%
PBC1	0.589	
Perceived Ease of Use		
PEOU2	0.893	57.3%
PEOU1	0.811	
PEOU3	0.769	
Perceived Risk		
PR3	0.786	63.0%
PR1	0.687	
PR2	0.656	
Subjective Norm		
SN2	-0.844	67.5%
SN1	-0.582	
SN3	-0.555	
Intention		
I1	0.832	70.2%
I2	0.629	

Extraction Method: Maximum Likelihood Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

A Rotation converged in 14 iterations.

Scores < .40 are not included in the matrix for clarity purposes.

4.4 Hypotheses testing

This study utilized linear regression analysis to test the research hypotheses of H_1, H_2, H_3, H_4, H_5, H_6, H_7, H_8, H_9, and H_{10} and to assess the influences of each construct determined in the research model,

Before conducting the regression analysis, preliminary analyses were performed to examine the data for multicollinearity and singularity assumptions. This was achieved by assessing the correlation coefficients, tolerance values, and variance inflation factor (VIF) values. The results indicated that there was no violation assumption of multicollinearity and singularity assumption.

The correlation coefficient between variables ranged between -.548 and .652 for Turkey and -.361 and 671 for the UK. The tolerance values varied between .393 and .786 for Turkey and .386 and .896 for the UK, and the VIF values ranged between 1.273 and 2.548 for Turkey and 1.116 and 2.588 for the UK. These values were all within acceptable ranges, suggesting that the data were suitable for linear regression analysis.

Table 6. Correlation coefficients

Country	Variables	I	AT	SN	PBC	PEOU	PU	PR
TR	I	1.000	0.652	0.384	-0.407	0.545	0.567	-0.225
TR	AT	0.652	1.000	0.635	-0.348	0.570	0.569	-0.247
TR	SN	0.384	0.635	1.000	-0.101	0.276	0.345	-0.097
TR	PBC	-0.407	-0.348	-0.101	1.000	-0.548	-0.341	0.369
TR	PEOU	0.545	0.570	0.276	-0.548	1.000	0.594	-0.373
TR	PU	0.567	0.569	0.345	-0.341	0.594	1.000	-0.375
TR	PR	-0.225	-0.247	-0.097	0.369	-0.373	-0.375	1.000
UK	I	1.000	0.563	0.374	-0.348	0.346	0.559	-0.171
UK	AT	0.563	1.000	0.671	-0.187	0.460	0.627	-0.087
UK	SN	0.374	0.671	1.000	-0.061	0.279	0.465	-0.054
UK	PBC	-0.348	-0.187	-0.061	1.000	-0.361	-0.229	0.308
UK	PEOU	0.346	0.460	0.279	-0.361	1.000	0.369	-0.177
UK	PU	0.559	0.627	0.465	-0.229	0.369	1.000	-0.049
UK	PR	-0.171	-0.087	-0.054	0.308	-0.177	-0.049	1.000

Table 7. Tolerance and Variance Inflation Factors

Country	Constructs	Tolerance	VIF
Turkey	AT	0.393	2.548
Turkey	SN	0.576	1.735
Turkey	PBC	0.657	1.521
Turkey	PEOU	0.460	2.175
Turkey	PU	0.544	1.838
Turkey	PR	0.786	1.273
UK	AT	0.386	2.588
UK	SN	0.540	1.850
UK	PBC	0.788	1.270
UK	PEOU	0.701	1.426
UK	PU	0.583	1.715
UK	PR	0.896	1.116

Overall, preliminary analyses indicated that this data can be utilized effectively for linear regression (Table 6 and Table 7).

4.4.1 Hypothesis regarding Attitude (H_1)

Hypothesis 1 posited that attitude is positively related to usage intention within online grocery shopping in both Turkey and the UK.

The regression analysis was conducted where the dependent variable was purchase intention and the independent variable was the attitude toward online grocery shopping, with a 95% confidence interval.

By this analysis, a significant result was found F (1, 224) = 165.914, p < 0.001 with R^2= .426. which means attitude towards online grocery shopping was accountable for about 43% of the variance in purchase intention for Turkey. Similarly, the figure is F (1, 217) = 100.61, p < 0.001 with R^2= 0.317 for UK, which also indicates a significant influence on purchase intention by explaining 32% of the variance in purchase intention. Hypothesis 1 is accepted as the regression analysis showed that attitude towards online grocery shopping has a significant positive relationship with purchase intention in both Turkey and the UK.

Table 8. Regression Model for Attitude and Purchase Intention for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.652[a]	0.426	0.423	0.828
UK	.563[a]	0.317	0.314	1.109
a. Predictors: (Constant), Attitude				
b. Dependent Variable: Intention				

4.4.2 Hypothesis regarding Subjective Norm (H_2)

Hypothesis 2 assumed a positive relationship between subjective norm and buying intention in online grocery shopping in both Turkey and the UK. The regression analysis was performed with purchase intention as an independent variable and subjective norm as a dependent variable. The confidence interval was 95%.

The analysis yielded a significant result of F (1, 224) = 38.779, p < 0.001 with R^2= .148 for Turkey, indicating that subjective norm accounted for about 15%

of the variance in the purchase intention. Similarly, for the UK, the analysis resulted in a figure of $F(1, 217) = 35.272$, $p < 0.001$ with $R^2 = 0.140$, indicating a significant influence of subjective norm by enabling to predict 14% of the variance in purchase intention. Hence, the regression analysis supports Hypothesis 2 as it found a significant positive correlation between subjective norm and purchasing intention in both Turkey and UK.

Table 9. Regression Model for Subjective Norm and Purchase Intention for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.384[a]	0.148	0.144	1.009
UK	.374[a]	0.140	0.136	1.245
a. Predictors: (Constant), Subjective Norm				
b. Dependent Variable: Intention				

4.4.3 Hypotheses regarding Perceived Behavioral Control (H_3, H_4)

In the theory of planned behavior, perceived behavioral control influences both purchase intention and purchase behavior. As aligned with this, Hypothesis 3 assumes perceived behavioral control is positively related to the usage intention of online grocery shopping in both Turkey and the UK.

Following the same methods explained above, regression analysis is conducted and found statistically significant results as $F(1, 224) = 44.56$, $p < 0.001$ for Turkey and $F(1, 217) = 29.937$, $p < 0.001$ for the UK. Perceived behavioral control explained the 17% variance of Turkey and 12% of the UK in purchase intention, which is a sufficient finding that demonstrates the correlation between the constructs. Therefore, Hypothesis 3 is accepted since perceived behavioral control is positively correlated to the purchase intention of online grocery shopping in both countries.

Table 10. Regression Model for Perceived Behavioral Control and Purchase Intention for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.407[a]	0.166	0.162	0.998
UK	.348[a]	0.121	0.117	1.258
a. Predictors: (Constant), Perceived Behavioral Control				
b. Dependent Variable: Intention				

The following hypothesis regarding perceived behavioral control is Hypothesis 4, which claims perceived behavioral control is positively related to the usage behavior of online grocery shopping in both Turkey and the UK. Regression analysis resulted as $F(1, 224) = 14.193$, $p < 0.001$ for Turkey and $F(1, 217) = 9.133$, $p < 0.001$ for the UK. However, in social science research, an empirical model with an R-square value falling between 0 and 0.10 is considered too low and statistically insignificant (Ozili, 2023). As it can be seen in the table, the model can predict approximately only 6% of the increase in purchase behavior in Turkey and 4% in the

UK which is lower than the minimum requirement of .10. Thus, Hypothesis 4 is rejected due to the statistically insignificant results.

Table 11. Regression Model for Perceived Behavioral Control and Purchase Behavior for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.244[a]	0.060	0.055	1.100
UK	.201[a]	0.040	0.036	1.141
a. Predictors: (Constant), Perceived Behavioral Control				
b. Dependent Variable: Purchase Behavior				

4.4.4 Hypothesis regarding Purchase Intention (H_5)

Hypothesis 5 examined the relationship between the intention to buy and the actual buying behavior of online groceries in both Turkey and the UK.

By using regression analysis to test Hypothesis 5, the study found that both countries had statistically significant results with $p < .001$. The model predicted that 35% of the variance in purchase behavior for Turkey could be explained by the favorable purchase intention, with $F(1, 224) = 119.642$, $p < 0.001$. Similarly, the UK showed almost identical results to Turkey, with $F(1, 217) = 136.993$, $p < 0.001$, and 39% of the variance was explained in purchase behavior. Results show that customers with strong buying intentions are likelier to shop online for groceries. Hence, Hypothesis 5 is accepted as the regression analysis found a statistically significant positive relationship between the intention to buy and the actual buying behavior of online groceries in both countries.

Table 12. Regression Model for Purchase Intention and Purchase Behavior for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.590[a]	0.348	0.345	0.916
UK	.622[a]	0.387	0.384	0.912
a. Predictors: (Constant), Intention				
b. Dependent Variable: Purchase Behavior				

4.4.5 Hypotheses regarding Perceived Usefulness (H_6 and H_7)

By extending the theory of planned behavior, perceived usefulness which is assumed to affect both the attitude and purchase intention, was added to the research model, and H_6 and H_7 were determined. Hypotheses 6 assumes that Perceived Usefulness is positively related to attitude within online grocery shopping in both Turkey and the UK.

It is found by regression analysis that perceived usefulness significantly affects the attitude towards online grocery shopping by $F(1, 224) = 107.166$, $p < 0.001$ in Turkey and $F(1, 217) = 140.752$, $p < 0.001$ in the UK. While perceived usefulness predicts 32% of the variance in attitude in Turkey, it explains higher in the UK by 39%. Since both countries fit to the model, H_6 can be considered as supported.

Table 13. Regression Model for Perceived Usefulness and Attitude for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.569[a]	0.324	0.321	1.257
UK	.627[a]	0.393	0.391	1.240
a. Predictors: (Constant), Perceived Usefulness				
b. Dependent Variable: Attitude				

Similarly, regression analysis showed that perceived usefulness significantly influences online grocery purchase intention in Turkey and the UK, as claimed in H_7. However, the model explained a higher portion in Turkey compared to the UK as contrary to the trend in H_6, by the results of $F(1, 224) = 105.921$, $p < 0.001$ with $R^2 = .321$ and $F(1, 217) = 98.622$, $p < 0.001$ with $R^2 = = .312$, respectively. Based on these findings, H_7 also can be assessed as accepted.

Table 14. Regression Model for Perceived Usefulness and Purchase Intention for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.567[a]	0.321	0.318	0.901
UK	.559[a]	0.312	0.309	1.113
a. Predictors: (Constant), Perceived Usefulness				
b. Dependent Variable: Intention				

4.4.6 Hypotheses regarding Perceived Ease of Use (H_8 and H_9)

Perceived ease of use is another construct that is discussed in the technology acceptance model. It's also used to extend the theory of planned behavior. It is assumed that perceived ease of use influences attitude and purchase intention directly, just like perceived usefulness. H_8 hypothesized the relationship between attitude and perceived ease of use, while H_9 examined its effects on purchase intention.

This model was tested using regression analysis, and statistically significant results were found for H_8 as F (1,224) = 107.99 $p<0.001$ for Turkey and F (1.217)= 58.33 $p<0.001$ for the UK. It predicted that the rate of variance would be higher in Turkey by 33 percent compared to the UK, where it was only 21 percent. Hypothesis 8 is accepted after these findings, as the regression analysis showed a significant positive correlation in both countries.

Table 15. Regression Model for Perceived Ease of Use and Attitude for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.570[a]	0.325	0.322	1.255
UK	.460[a]	0.212	0.208	1.414
a. Predictors: (Constant), Perceived Ease of Use				
b. Dependent Variable: Attitude				

Similar to H_8, testing Hypothesis 9 yielded significant results with F (1,224) = 94.677 p<0.001 for Turkey, and F (1,217)= 29,434, p<0.001 for the UK. Purchase intention's variance for the sample in Turkey was explained with perceived behavior control by 30%, however, this figure is 12% in the UK. The findings below revealed that for both Turkey and the UK, customers' perceived ease of use positively affects buying intention. Therefore, it can be deemed as Hypothesis 9 was accepted.

Table 16. Regression Model for Perceived Ease of Use and Purchase Intention for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.545[a]	0.297	0.294	0.916
UK	.346[a]	0.119	0.115	1.259
a. Predictors: (Constant), Perceived Ease of Use				
b. Dependent Variable: Intention				

4.4.7 Hypothesis regarding Perceived Risk (H_{10})

Finally, Hypothesis 10 assumed that perception of risk is negatively related to usage intention to online grocery shopping.

The analysis yielded a result of $F(1, 224) = 11.997$, $p < 0.001$ with $R^2 = .051$ for Turkey, indicating that perceived risk accounted for only 5% of the variance in the purchase intention. Similarly, for the UK, the analysis resulted as $F(1, 217) = 6.54$, $p < 0.001$ with $R^2 = 0.029$, which means only a 3% prediction of the variance in purchase intention. Since R Square values remained below .10, Hypothesis 10 is rejected which assumed a negative relationship between perception of risk and usage intention to online grocery shopping. The low R Square values for Turkey and the UK indicate that perceived risk has a very limited impact on purchase intention, accounting for only 5% and 3% of the variance, respectively. Thus, it is found that perceived risk is not a significant factor in determining online shopping intention in both countries.

Table 17: Regression Model for Perceived Risk and Purchase Intention for TR and UK

Model Summary[b]				
Country	R	R Square	Adjusted R Square	Std. Error of the Estimate
TR	.225[a]	0.051	0.047	1.065
UK	.171[a]	0.029	0.025	1.322
a. Predictors: (Constant), Perceived Usefulness				
b. Dependent Variable: Intention				

4.4.8 Summary of results of hypothesis

Based on the previous analysis, the results of the hypothesis are outlined as follows:

Table 18: Summary of results of hypothesis

Hypothesis No	Hypothesis	Result
Hypothesis 1	Attitude is positively related to usage intention within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 2	Subjective Norm is positively related to usage intention within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 3	Perceived Behavioural Control is positively related to usage intention within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 4	Perceived Behavioural Control is positively related to usage behaviour of online grocery shopping in both Turkey and the UK.	Rejected
Hypothesis 5	Intention is positively related to usage behaviour of online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 6	Perceived Usefulness is positively related to attitude within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 7	Perceived Usefulness is positively related to usage intention within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 8	Perceived Ease of Use is positively related to attitude within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 9	Perceived Ease of Use is positively related to usage intention within online grocery shopping in both Turkey and the UK.	Accepted
Hypothesis 10	Perception of risk is negatively related to usage intention to online shopping in both Turkey and the UK.	Rejected

4.5 Other findings

In order to answer the research question of if the factors affecting online grocery shopping significantly differs between Turkey and the UK, independent samples T-tests were used.

Prior to the T-test analysis, skewness and kurtosis values were analyzed to check for the normality of the data. The results indicated that skewness values varied between -1.26 and .8, while the kurtosis values ranged between -.84 and 1.66.

According to George (2011), the data is normally distributed if these values range between -2 and +2. Thus, the data were deemed suitable for T-test analysis.

Table 19. Normality Test for T-test Analysis

	Skewness	Kurtosis
AT	-0.49	-0.45
SN	0.14	-0.84
PBC	0.80	-0.12
PEOU	-1.12	1.53
PU	-1.21	1.17
PR	0.07	-0.65
I	-1.26	1.66

In order to test if attitude towards online grocery shopping is statistically different between Turkey and the UK, T-test was conducted, and the result was founded as t (443) = 0.799, p= 0.425, as seen in the table below.

Since the p-value is 0.425, which is not statistically significant at the conventional threshold of $p < 0.05$, this suggests that there was no significant difference between Turkey and the UK regarding attitude towards online grocery shopping.

Table 20. T-test Model for Attitude between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	4.856	1.525	0.799	443	0.425
UK	219	4.738	1.589			

T-test was employed to test if there is a significant difference between Turkey and the UK in terms of the subjective norm.

The results were found as t (443) = -0.231, p= 0.818, with the UK's slightly higher mean value of 3.74 over 3.71. The obtained p-value is higher than the conventional threshold of 0.05 by a p-value of 0.425, which shows there is no statistically important difference between these countries regarding subjective norms for online grocery shopping.

Table 21. T-test Model for Subjective Norm between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	3.707	1.539	-0.231	443	0.818
UK	219	3.740	1.487			

In order to assess the difference between Turkey and the UK for the perceived behavioral control dimension towards online grocery shopping, the T-test model was utilized, and a statistically significant result was found as t (426) = -3.961, p = .000.

As can be seen in the table below, the results indicate a significantly important difference between Turkey and the UK for customers' perception of their control over online grocery shopping behavior. Items in the survey regarding perceived behavioral control claimed online shopping is very complex, and it is hard to find the needed products via online grocery shopping. That indicates a lower mean value on the items means higher perceived behavioral control over online grocery shopping. Considering the values in the below table, Turkey had a lower mean value of 2.44, while the UK had 2.99, which shows customers in Turkey have a higher perception of control over the behavior of online grocery shopping, and the difference between countries was statistically significant by the p-value of .000.

Table 22. T-test Model for Perceived Behavioral Control between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	2.440	1.315	-3.961	426	0.000
UK	219	2.982	1.555			

It is also checked by using T-test whether if the difference on intention towards online grocery shopping between Turkey and the UK is statistically important. After the analysis, no significant difference was found by t (420.155) = 0.894, p = 0.372, which showed customers in both countries have a similar intention to buy groceries from online channels.

Table 23. T-test Model for Purchase Intention between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	5.544	1.090	0.894	420	0.372
UK	219	5.441	1.339			

To analyze if perceived usefulness differs from country to country significantly, a T-test has been conducted. The results showed statistically significant differences between Turkey and the UK in the perceptions of usefulness for online grocery shopping by t (438.393) = 2.312, p = 0.021. While the UK had a score of 5.52, customers in Turkey received a mean score of 5.83. This means that Turkish customers consider online grocery shopping to be more useful than UK consumers.

Table 24. T-test Model for Perceived Usefulness between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	5.83	1.329	2.312	438	0.021
UK	219	5.52	1.427			

When it comes to if the perceived ease of use for online grocery shopping is statistically different between Turkey and the UK, as indicated below in the Table, no difference was found but strong similarities between countries with a high p-value as t (443) = -0.022, p = 0.983. It showed that both countries perceive using online grocery shopping services as easy in the similar levels.

Table 25. T-test Model for Perceived Ease of Use between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	5.631	1.234	-0.022	443	0.983
UK	219	5.634	1.084			

The risk perception towards online grocery shopping was assessed by employing T-test to see if it statistically differs between Turkey and the UK. The results showed that there was a statistically significant risk perception difference between Turkey and the UK as the results are t (440.457) = -2.243, p = 0.025. While customers in the UK found the online grocery shopping risky by the mean of 3.94, customers in Turkey gave 3.64 which shows UK customers found online grocery shopping riskier. Item wised analysis was made to find the origins of this difference and the main difference comes from the perception of product quality and payment security risk. Customers in the UK assume online grocery shopping is riskier in terms of these concerns.

Table 26. T-test Model for Perceived Risk between Turkey and the UK

Country	N	$\bar{X}$	S. D	t	df	p
TR	226	3.635	1.387	-2.243	440	0.025
UK	219	3.937	1.451			

CHAPTER 5

DISCUSSION AND CONCLUSION

Online grocery shopping has taken an important place in the daily shopping of customers on different scales in many countries in recent years. With this innovation, many studies in the literature were carried out to understand online grocery shopping behavior. This study was conducted in order to address some gaps noticed in the literature. Firstly, this paper aimed to investigate the factors affecting consumers' online grocery shopping behavior. Additionally, although there were many studies regarding the behavior of online grocery shopping, to the best of our knowledge, no studies compared how it differs in multiple countries with different development levels. While some studies examined developed countries, others researched developing countries.

At this point, a gap was identified in terms of how differentiation between developed and developing countries would take place, anticipating that customers may exhibit different characteristics depending on the level of development of the countries. This gap is also suggested in the research of Askar (2020) and Li & Ohlsson (2017) as future recommendations. In order to fill this gap and fulfill an efficient comparison, the UK was chosen as the developed country, while Turkey was selected as the developing country. Thus, this paper also aimed to understand if the factors affecting online grocery shopping differentiate between developed and developing countries.

The theory of planned behavior was employed, which is a well-established theory and has an essential place in the literature on understanding the reasons that affect customers' purchasing behavior. In this context, attitude, subjective norm, perceived behavioral control were discussed. In addition, the theory of planned behavior was extended by adding perceived ease of use, perceived usefulness, and perceived risk, which are frequently used in studies examining online grocery shopping, to the research model.

As a result of analyzing the hypotheses, it was found that all factors which were predicted to affect purchase intention were significantly correlated except perceived risk. As consistent with the literature, attitude towards online grocery shopping was the construct that explained purchase intention the most in both countries. Almost all studies examined online grocery shopping found the attitude as the most predictor of purchase intention and this paper also suggested the same. This means that a positive attitude toward using grocery delivery services motivates customers to purchase groceries online. This finding is in line with Hansen (2006). Distinctly, the attitude was found to have a greater effect on buying intention for customers in Turkey than in the UK.

Subjective norm, which is a relatively controversial construct, was identified as significantly affecting purchase intention in the studies of Li & Ohlsson (2017) and Askar (2020), while it was identified as insignificant in the studies of Blomqvist, Nyman & Lennartsson (2015) and Sutisna & Handra (2022). In this paper, it was found to be a construct affecting purchase intention in both countries in line with the findings of Li & Ohlsson (2017) and Askar (2020).

Perceived behavioral control was found to affect the purchase intention significantly in both Turkey and the UK, just like the customers in Portugal in the research of Ruivos (2022). This result indicates that if customers don't feel like they have control over online grocery shopping behavior, they don't intend to buy groceries online. We also analyzed perceived behavioral control's direct effect on buying behavior as determined in the theory of planned behavior. Although perceived behavioral control affects intention, as a minority in the literature and consistent with Javadi et al. (2012), it didn't directly and significantly affect purchase behavior in both countries. Purchase intention is another construct that directly determines buying behavior according to the theory of planned behavior and as expected, and consistent with all the previous studies regarding online grocery shopping, purchase intention became an indicator of the buying behavior.

In this study, as inspired by the technology acceptance model and extending the theory of planned behavior, it was suggested that attitude toward online grocery shopping and purchase intention would be affected by perceived ease of use and perceived usefulness. The results indicated that customers' perception of usefulness had a significant positive influence on both attitude and purchase intention, supporting previous studies of Askar (2020). These findings show that customers perceive on-demand delivery services as useful and by using online grocery retailer's services, customers consider that they increase their buying productivity. Just like the construct of perceived usefulness, perceived ease of use showed a significant effect on the attitude and purchase intention in both Turkey and the UK. About 72 percent of the respondents in Turkey and 70 percent of the respondents in the UK agreed or strongly agreed that purchasing groceries on the internet is easy and straightforward. Considering both mentioned constructs that adapted from the technology acceptance model (TAM) had a significant effect, it can be deduced that TAM is also a beneficial theory to understand online grocery shopping behavior.

The only construct that did not significantly affect purchase intention and could not be supported as a hypothesis was perceived risk. Customers' perception on the risks of online grocery shopping didn't influence their buying behavior.

However, this result is contradictory to the findings of many researchers (Gruntkowski & Martinez, 2022; Hansen, 2006; Mortimer et al., 2016). Considering Gruntkowski & Martinez (2022) found a significant negative effect of perceived risk on purchase intention toward online grocery shopping in Germany, which is a developed country, finding insignificant influence in the UK which is also a developed country was unexpected. On the other hand, there are also studies (Tyrväinen & Karjaluoto, 2022) that found perceived risk as an insignificant determinant of purchase intention as in line with this paper's results.

In this research, we also investigated how the factors affecting online grocery shopping behavior and purchase intention differs between Turkey and the UK. No difference was found in terms of the attitude towards online grocery shopping. Customers had high level of attitude in both countries and there was no important difference between respondents in Turkey and the UK. Subjective norms also showed similar characteristics in both countries and did not differ significantly. However, it was noticed that the perception of control over online grocery shopping in Turkey was significantly higher compared to the UK. It can be considered that the success of online grocery shopping applications, which have grown and expanded rapidly in Turkey in recent years, has created a higher behavioral control perception than developed country customers by increasing customer experience as a result of user-friendly actions.

As another factor that significantly differs between countries, perception of usefulness showed different trends in Turkey and the UK, as customers in Turkey found online grocery shopping more useful than those in the UK. This difference showed that online grocery shopping was perceived as more time-saving and convenient in Turkey. This finding suggests that grocery delivery services are assumed as more time efficient than their physical equivalent, especially in developing countries.

No difference was found in perceived ease of use and purchase intention. But in terms of the perceived risk, it differentiated between the countries. Customers in the UK perceived online grocery shopping as riskier than customers in Turkey. Product quality and payment security concerns of UK customers underlie this differentiation. Considering that the UK is a developed country, it can be expected that customers are more sensitive to payment security; however, since Turkey is still in the developing process, people may not yet be fully aware of rules, regulations, and security measures regarding payment systems that protect their privacy, personal data, and transactions. Therefore, a lower perception of risk in Turkey was expectable. In addition, if it is assumed that the grocery product quality in retail stores in the UK, which is a developed country, is in better quality than in Turkey, and considering that online grocery services are still in the establishing stage, it can be assumed that these services have not yet caught up with retail stores in the UK in terms of product quality.

In light of all explained findings, this paper has provided important insights into how online grocery shopping behavior may be influenced by various factors and how these factors may differ in developed and developing countries. While this paper can be assumed as an essential start to fill the gap in the literature, consumer research needs to conduct further studies on this gap.

IMPLICATION, LIMITATION AND FUTURE RESEARCH

6.1 Theoretical and managerial implications

The literature on customers' online grocery shopping behavior is still very limited since it can be assumed to be a relatively new business model compared to traditional retail channels. Therefore, the theories that can be utilized in online grocery shopping studies are not developed and tested well yet. This study showed marketing researchers that the theory of planned behavior is an effective theory that can be used to explain online grocery shopping behavior. It also provided an important example to the literature that the theory of planned behavior can be extended with technology acceptance model constructs.

In terms of the managerial implications, this paper can offer valuable information for online grocery retailers in the UK and Turkey, helping them tailor marketing strategies more closely to customers' needs by understanding which factors impact online grocery purchasing behavior.

Specifically, since attitude towards online grocery shopping is the most significant factor for the purchase intention in both markets, it is necessary for companies to strengthen the perception of ease of use and usefulness, which are the factors that positively affect the attitude. To achieve this, user-friendly interfaces can be used in sales channels, and they should also promote their solution's convenience and time saver features through effective advertisements.

Moreover, as it has been realized that the behavioral control that customers feel during the online grocery shopping phase is limited in the UK market, retailers, especially in the UK, should focus on increasing this perception.

In addition, the differences revealed by comparing online grocery shopping behaviors in the UK and Turkey showed that the level of development of the markets should be taken into consideration when analyzing consumer behavior. In particular, online grocery retailers serving in both developing and developed countries like Getir can use these insights to better adapt their marketing strategies to the cultural and economic characteristics of their target markets, in line with the development levels of the markets.

6.2 Limitations and future research

Naturally, there are also some limitations in this paper. The sample size utilized in this study may not be sufficient enough to represent the entire population of online grocery shoppers in the UK and Turkey. Although it provided the minimum limits stipulated in the literature, the sample could not reach the desired levels due to time and facility constraints. A larger sample shall give more accurate and reliable results. Especially, even though the majority of the previous studies found perceived risk as a significant determinant of the purchase intention, in this paper, respondents' risk perception of using online grocery shopping services didn't affect their purchase intention. This may be changed by using larger sample and should be investigated in following studies.

Second, an absolute homogeneity in the demographic characteristics of the participants in the two countries was not achieved. Particularly on gender, the UK sample contains a higher percentage of male participants, while the sample in Turkey has a higher portion of female participants. This may limit the generalizability of the findings to the entire population of online grocery shoppers in these countries.

Third, the study used only the extended TPB framework, ignoring the potential impact of situational factors such as adverse weather conditions or customer illness, which can be assumed as possible reasons to buy groceries from home rather than going to traditional stores. It is recommended that future research consider the potential effects of situational factors and also explore other theoretical frameworks, such as the technology acceptance model, to provide a more comprehensive understanding of online grocery shopping behavior.

Additionally, the research may have been biased due to the choice of the UK as a developed country and Turkey as a developing country. The peculiarities of these countries in particular might have an impact on the results. In order to reduce potential biases, it is advised that future studies strive to explore the research topic in a wider scope of developed and developing countries.

Furthermore, this study doesn't examine specific traits of developed and developing nations that might be responsible for variations in online grocery purchasing behavior. What peculiarities in these nations primarily contributed to this disparity has not been clarified. Future studies might concentrate on looking at cultural and economic factors that could account for these variations.

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APPENDIX A

SOURCES FOR QUESTINARIE DESIGN

Dimension	Questions	Adapted From
Attitutes		
A1	I like to buy groceries in online platforms	Peña-García et al., 2020
A2	Buying groceries via the Internet is beneficial to me	Hansen, 2008
A3	Electronic shopping of groceries is attractive to me in my daily life	Hansen 2008
A4	Buying groceries via the Internet is well suited to the way in which I normally shop groceries	Hansen 2008
Subjective Norms		
SN1	I will use online grocery shopping if the service is widely used by people in my community.	Askar, 2020
SN2	People who are important to me, believe I should buy groceries from online stores	Peña-García et al., 2020
SN3	Most of my friends and family think that shopping groceries via the Internet is a good idea	Hansen 2008
Perceived Behavioral Control		
PBC1	In general, electronic shopping is very complex	Hansen 2008
PBC2	It is hard to find the needed products when shopping groceries via the Internet	Hansen 2008
PBC3	In general, electronic shopping of groceries yields few problems for me	Hansen 2008

PBC4	The process of purchasing groceries online is entirely under my control	Peña-García et al., 2020
Intention		
I1	How likely is it that over the next 5 years you will shop for groceries via the Internet?	Hansen 2008
I2	How large a part of your grocery shopping do you intend to carry out via the Internet in 5 years from now?	Hansen 2008
Perceived Ease of Use		
PEOU1	Online grocery shopping is easy-to-use.	Askar, 2020
PEOU2	My interaction with the processes of online grocery shopping is clear and understandable.	Askar, 2020
PEOU3	It is easy for me to follow the procedures when ordering groceries online.	Askar, 2020
Perceived Usefullness		
PU1	Using online grocery shopping can improve my efficieny in purchasing groceries	Askar, 2020
PU2	Using online grocery shopping can save me a lot of time	Askar, 2020
PU3	Using online grocery shopping is convenient for my grocery shopping.	Askar, 2020
PU4	Using online grocery shopping can save me money.	Choi, 2013
Perceived Risk		
PR1	I am concerned with the quality of the products delivered when ordering from Online Grocery	Askar, 2020
PR2	I am concerned with the payment security aspects of online grocery shopping .	Askar, 2020
PR3	I am concerned with the punctuality of the delivery time of online grocery shopping .	Askar, 2020

APPENDIX B

QUESTIONNAIRE IN ENGLISH

Survey on Online Grocery Shopping

You are invited to participate in academic research which aims to determine the factors affecting online grocery shopping behavior. To this aim; you will be asked to respond to questions about your demographic information, your intention, and your perceptions about online grocery shopping.

It will take approximately 3-4 minutes to complete. Your responses will remain anonymous and the results of the research will be used for purely scientific purposes.

Thank you for your participation and contribution!

PART I

Demographic Information

1) Please indicate your age group?

18-24

25-34

35-45

Above 45

2) Please indicate your gender?

Male

Female

Non-Binary

Prefer not to answer

3) What is your level of education?

Primary School

High School

Bachelor's Degree

Postgraduate

Other

4) What is your annual household income?

£0-20000

£20001-30000

£30001-45000

£45001-60000

Above £60000

Prefer not to answer

5) In which country do you reside?

United Kingdom

Turkey

Other:

6) How frequently do you shop for groceries online?

Twice a Week

Once a week

Once a month

Rarely

Never

Part II

Please choose from the following seven response options:
1 = Strongly Disagree
2 = Disagree
3 = Somewhat Disagree
4 = Undecided Neither Agree Nor Disagree
5 = Somewhat Agree
6 = Agree
7 = Strongly Agree

7) I like to buy groceries in online platforms.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

8) Buying groceries via the Internet is beneficial to me.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

9) Electronic shopping of groceries is attractive to me in my daily life.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

10) Buying groceries via the Internet is well suited to the way in which I normally shop groceries.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

11) I will use online grocery shopping if the service is widely used by people in my community.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

12) People who are important to me, believe I should buy groceries from online stores.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

13) Most of my friends and family think that shopping groceries via the Internet is a good idea.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

14) In general, electronic shopping is very complex.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

15) It is hard to find the needed products when shopping groceries via the Internet

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

16) In general, electronic shopping of groceries yields few problems for me

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

17) The process of purchasing groceries online is entirely under my control

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

Part III

Please choose from the following seven response options:
1 = Strongly Disagree
2 = Disagree
3 = Somewhat Disagree
4 = Undecided Neither Agree Nor Disagree
5 = Somewhat Agree
6 = Agree
7 = Strongly Agree

18) Online grocery shopping is easy-to-use.

Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

19) My interaction with the processes of online grocery shopping is clear and understandable.

Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

20) It is easy for me to follow the procedures when ordering groceries online.

Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

21) Using online grocery shopping can improve my efficieny in purchasing groceries

Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

22) Using online grocery shopping can save me a lot of time

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

23) Using online grocery shopping is convenient for my grocery shopping.

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

24) I am concerned with the quality of the products delivered when ordering from Online Grocery

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

25) I am concerned with the payment security aspects of online grocery shopping .

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

26) I am concerned with the punctuality of the delivery time of online grocery shopping .

	1	2	3	4	5	6	7	
Strongly Disagree								Strongly Agree

Part IV

Please choose from the following seven response options for each questions:

27) How likely is it that over the next 5 years you will shop for groceries via the Internet?

1 = Very unlikely

2 = Unlikely

3 = Slightly unlikely

4 = Neutral

5 = Slightly likely

6 = Likely

7 = Very likely

	1	2	3	4	5	6	7	
Very Unlikely								Very Likely

28) How large a part of your grocery shopping do you intend to carry out via the internet in 5 years from now?

1 = None of it

2 = A very small part of it

3 = A small part of it

4 = Neutral

5 = A significant part of it

6 = A large part of it

7 = Almost all of it

	1	2	3	4	5	6	7	
None of it								Almost all of it

APPENDIX C

QUESTIONNAIRE IN TURKISH

Online Market Alışverişi Anketi

Online market alışverişi davranışını etkileyen faktörleri belirlemeyi amaçlayan akademik araştırmamızın anketine davetlisiniz. Bu doğrultuda; demografik bilgileriniz ve online market alışverişi hakkındaki niyetiniz ve algılarınız ile ilgili soruları yanıtlamanızı talep etmekteyiz.

Anketimizin tamamlanması yaklaşık 3-4 dakika sürmektedir. Yanıtlarınız tamamen anonim kalacak ve araştırma sonuçları bilimsel amaçlarla kullanılacaktır.

Katılımınız ve katkılarınız için teşekkür ederiz!

Bölüm I
Demografik Bilgiler

1) Lütfen yaş grubunuzu belirtiniz?

18-24
25-34
35-45
45 üstü

2) Lütfen cinsiyetinizi belirtiniz?

Erkek
Kadın
Non-Binary
Cevap vermek istemiyorum

3) Eğitim seviyeniz nedir?

İlkokul
Lise
Lisans
Lisansüstü
Diğer

4) Aylık hane geliriniz hangi aralıktadır?

₺0-8.500
₺8.501-15.000
₺15.001-25.000
₺25.001-40.000
₺40.001 üstü
Cevap vermek istemiyorum

5) Hangi ülkede ikamet ediyorsunuz?

Türkiye
Birleşik Krallık
Diğer:

6) İnternetten ne sıklıkla market alışverişi yaparsınız?

Haftada iki
Haftada bir
Ayda bir
Nadiren
Hiç yapmıyorum

Bölüm II

Lütfen aşağıdaki yedi seçenekten birini seçiniz:

1 = Kesinlikle katılmıyorum

2 = Katılmıyorum

3 = Kısmen katılmıyorum

4 = Ne katılıyorum ne katılmıyorum

5 = Kısmen katılıyorum

6 = Katılıyorum

7 = Kesinlikle katılıyorum

7) Online platformlardan market alışverişi yapmayı severim.

	1	2	3	4	5	6	7	
Kesinlikle katılmıyorum								Kesinlikle katılıyorum

8) İnternet üzerinden market alışverişi yapmak benim için faydalıdır.

	1 2 3 4 5 6 7	
Kesinlikle katılmıyorum		Kesinlikle katılıyorum

9) Günlük hayatımda online market alışverişi yapmak bana ilgi çekici geliyor.

	1 2 3 4 5 6 7	
Kesinlikle katılmıyorum		Kesinlikle katılıyorum

10) İnternet üzerinden market alışverişi yapmak, normalde market alışverişi yapma şeklime uygundur.

	1 2 3 4 5 6 7	
Kesinlikle katılmıyorum		Kesinlikle katılıyorum

11) Online market alışverişi çevremdeki insanlar tarafından yaygın bir şekilde yapılırsa ben de kullanmayı tercih ederim.

	1 2 3 4 5 6 7	
Kesinlikle katılmıyorum		Kesinlikle katılıyorum

12) Benim için önemli olan insanlar, online platformlardan market alışverişi yapmam gerektiğine inanıyor.

	1 2 3 4 5 6 7	
Kesinlikle katılmıyorum		Kesinlikle katılıyorum

13) Arkadaşlarımın ve ailemin çoğu internetten market alışverişi yapmanın iyi bir fikir olduğunu düşünüyor.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum | Kesinlikle katılıyorum

14) İnternet alışverişi genelde çok karmaşıktır.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum | Kesinlikle katılıyorum

15) İnternet üzerinden market alışverişi yaparken ihtiyaç duyulan ürünleri bulmak zordur.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum | Kesinlikle katılıyorum

16) Benim için online market alışverişi genelde çok az sorun yaratır.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum | Kesinlikle katılıyorum

17) Online üzerinden market alışverişi yapma süreci tamamen kontrolüm altındadır.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum | Kesinlikle katılıyorum

Bölüm III

Lütfen aşağıdaki yedi seçenekten birini seçiniz:

1 = Kesinlikle katılmıyorum

2 = Katılmıyorum

3 = Kısmen katılmıyorum

4 = Ne katılıyorum ne katılmıyorum

5 = Kısmen katılıyorum

6 = Katılıyorum

7 = Kesinlikle katılıyorum

18) Online market alışverişi kullanımı kolaydır.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum — Kesinlikle katılıyorum

19) Online market alışverişi süreçleriyle etkileşimim açık ve anlaşılırdır.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum — Kesinlikle katılıyorum

20) Online market alışveriş siparişi verirken prosedürleri takip etmek benim için kolaydır.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum — Kesinlikle katılıyorum

21) Online market alışverişi yapmak, market ürünleri satın almadaki verimliliğimi artırabilir.

1 2 3 4 5 6 7

Kesinlikle katılmıyorum — Kesinlikle katılıyorum

22) Online market alışverişi yapmak bana çok zaman kazandırabilir.

	1	2	3	4	5	6	7	
Kesinlikle katılmıyorum								Kesinlikle katılıyorum

23) Online market alışverişi yapmak pratiktir.

	1	2	3	4	5	6	7	
Kesinlikle katılmıyorum								Kesinlikle katılıyorum

24) Online market üzerinden teslim edilen ürünlerin kalitesinden endişeliyim.

	1	2	3	4	5	6	7	
Kesinlikle katılmıyorum								Kesinlikle katılıyorum

25) Online market alışverişinin ödeme güvenliğine dair endişeliyim.

	1	2	3	4	5	6	7	
Kesinlikle katılmıyorum								Kesinlikle katılıyorum

26) Online market alışverişinin teslimat süresinin dakikliği konusunda endişeliyim.

	1	2	3	4	5	6	7	
Kesinlikle katılmıyorum								Kesinlikle katılıyorum

Bölüm IV

Lütfen her iki soru için de belirtilmiş olan yedi seçenekten birini seçiniz:

27) Önümüzdeki 5 yıl içinde internet üzerinden market alışverişi yapma olasılığınız nedir?

1 = Kesinlikle yapmam
2 = Muhtemelen yapmam
3 = Yapmayabilirim
4 = Kararsızım
5 = Yapabilirim
6 = Muhtemelen yaparım
7 = Kesinlikle yaparım

	1	2	3	4	5	6	7	
Kesinlikle yapmam								Kesinlikle yaparım

28) Önümüzdeki 5 yıl içinde market alışverişinizin ne kadarını internetten yapmayı düşünüyorsunuz?

1 = Hiçbir kısmını
2 = Çok küçük bir kısmını
3 = Küçük bir kısmını
4 = Kararsızım
5 = Önemli bir kısmını
6 = Büyük bir kısmını
7 = Neredeyse tamamını

	1	2	3	4	5	6	7	
Hiçbir kısmını								Neredeyse tamamını

REFERENCES

Ahmed, F. (2016). Online grocery shopping in Jyväskylä: Business models & Demand.

Ahuja, M., Gupta, B., & Raman, P. (2003). An empirical investigation of online consumer purchasing behavior. *Communications of the ACM*, *46*(12), 145-151.

Ajzen, I. (1980). Understanding attitudes and predicting social behavior. *Englewood cliffs*.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior (pp. 11-39). Springer Berlin Heidelberg.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, *50*(2), 179-211.

Ajzen, I. (2002). Perceived behavioral control, self- efficacy, locus of control, and the theory of planned behavior 1. *Journal of applied social psychology*, *32*(4), 665-683.

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological bulletin*, *84*(5), 888.

Al Nawayseh, M., & Balachandran, W. (2012). Online grocery shopping in developing countries: Jordanian consumers as case study. *International Journal of Social Ecology and Sustainable Development (IJSESD)*, *3*(3), 1-14.

Allen, J., Piecyk, M., & Piotrowska, M. (2018). An analysis of the same-day delivery market and operations in the UK. *Online: http://www. ftc2050. com/reports/ftc2050-2018-Same-day_delivery_market_UK. pdf#:~: text= This% 20report*, *20*.

Alyoubi, A. A. (2015). E-commerce in developing countries and how to develop them during the introduction of modern systems. *Procedia Computer Science*, *65*, 479-483.

Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, *33*(5471), 1-8.

ASKAR, W. (2020). Factors Influencing Consumer's Intention Towards Online Grocery Shopping In The United Arab Emirates. *PhD diss., SBS Swiss Business School*.

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: measuring hedonic and utilitarian shopping value. *Journal of consumer research*, *20*(4), 644-656.

Bakos, Y. (2001). The emerging landscape for retail e-commerce. *Journal of economic perspectives*, *15*(1), 69-80.

BARIŞ, A., & YILMAZ, T. (2021). Consumers' Perceptions of Online Grocery Applications:'Getir'a case study in Turkey. *Maltepe Üniversitesi İletişim Fakültesi Dergisi*, *8*(2), 206-228.

Bauerová, R., & Klepek, M. (2018). Technology acceptance as a determinant of online grocery shopping adoption. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, *66*(3), 737-746.

Bhatti, A., Saad, S., & Gbadebo, S. M. (2018). Convenience risk, product risk, and perceived risk influence on online shopping: Moderating effect of attitude. *International Journal of Business Management*, *3*(2), 1-11.

Bloch, P. H., & Bruce, G. D. (1984). The leisure experience and consumer products: An investigation of underlying satisfactions. *Journal of Leisure Research*, *16*(1), 74-88.

Blomqvist, A., Nyman, L., & Lennartsson, F. (2015). Consumer attitudes towards online grocery shopping: A research conducted on Swedish consumers.

Bourlakis, M., Papagiannidis, S., & Fox, H. (2008). E-consumer behaviour: Past, present and future trajectories of an evolving retail revolution. *International Journal of E-Business Research (IJEBR)*, *4*(3), 64-76.

Bryman, A., & Bell, E. (2015). Business research methods (Vol. 4th). *Glasgow: Bell & Bain Ltd*.

Chin, S. L., & Goh, Y. N. (2017). Consumer Purchase Intention Toward Online Grocery Shopping: View from Malaysia. *Global Business & Management Research*, *9*.

Cho, Y. C., & Sagynov, E. (2015). Exploring factors that affect usefulness, ease of use, trust, and purchase intention in the online environment. *International journal of management & information systems*, *19*(1), 21-36.

Choi, J., & Geistfeld, L. V. (2004). A cross-cultural investigation of consumer e-shopping adoption. *Journal of Economic Psychology*, *25*(6), 821-838.

Choi, Y. (2013). *A structural equation model of the determinants of repeat purchase behaviour of online grocery shoppers in the UK* (Doctoral dissertation, Newcastle University).

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

Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International journal of man-machine studies, 38*(3), 475-487.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management science*, *35*(8), 982-1003.

Driediger, F., & Bhatiasevi, V. (2019). Online grocery shopping in Thailand: Consumer acceptance and usage behavior. *Journal of Retailing and Consumer Services*, *48*, 224-237.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Addison-Wesley.

George, D. (2011). *SPSS for windows step by step: A simple study guide and reference, 17.0 update, 10/e*. Pearson Education India.

Gomes, S., Lopes, J. M., & Oliveira, J. (2023). Online Food Shopping. *Innovar: Revista de ciencias administrativas y sociales*, *33*(87), 73-92.

Grocery Doppio (2023, January 9). *2022 Performance Scorecard: State of Digital Grocery*. Retrieved May 8, 2023, from https://www.grocerydoppio.com/performance-scorecard/2022-performance-scorecard-state-of-digital-grocery

Gruntkowski, L. M., & Martinez, L. F. (2022). Online grocery shopping in germany: Assessing the impact of COVID-19. *Journal of Theoretical and Applied Electronic Commerce Research*, *17*(3), 984-1002.

Habib, S., & Hamadneh, N. N. (2021). Impact of perceived risk on consumers technology acceptance in online grocery adoption amid covid-19 pandemic. *Sustainability*, *13*(18), 10221.

Hansen, T. (2005). Consumer adoption of online grocery buying: a discriminant analysis. *International Journal of Retail & Distribution Management*, *33*(2), 101-121.

Hansen, T. (2006). Determinants of consumers' repeat online buying of groceries. *International Review of Retail, Distribution and Consumer Research*, *16*(1), 93-114.

Hansen, T. (2008). Consumer values, the theory of planned behaviour and online grocery shopping. *International Journal of Consumer Studies*, *32*(2), 128-137.

Hansen, T., Jensen, J. M., & Solgaard, H. S. (2004). Predicting online grocery buying intention: a comparison of the theory of reasoned action and the theory of planned behavior. *International Journal of Information Management*, *24*(6), 539-550.

Hassan, L. M., Shiu, E., & Parry, S. (2016). Addressing the cross- country applicability of the theory of planned behaviour (TPB): A structured review of multi- country TPB studies. *Journal of Consumer Behaviour*, *15*(1), 72-86.

Hendrawan, D., & Zorigoo, K. (2019). Trust in website and its effect on purchase intention for young consumers on C2C e-commerce business. *Jurnal Aplikasi Manajemen*, *17*(3), 391-399.

Hogreve, J., Matta, S., Hettich, A. S., & Reczek, R. W. (2021). How do social norms influence parents' food choices for their children? The role of social comparison and implicit self-theories. *Journal of retailing*, *97*(2), 173-190.

Hsu, M. H., Yen, C. H., Chiu, C. M., & Chang, C. M. (2006). A longitudinal investigation of continued online shopping behavior: An extension of the theory of planned behavior. *International journal of human-computer studies*, *64*(9), 889-904.

Islam, M. A., & Daud, K. A. K. (2011). Factors that influence customers' buying intention on shopping online. *International Journal of marketing studies*, *3*(1), 128.

Javadi, M. H. M., Dolatabadi, H. R., Nourbakhsh, M., Poursaeedi, A., & Asadollahi, A. R. (2012). An analysis of factors affecting on online shopping behavior of consumers. *International journal of marketing studies*, *4*(5), 81.

Kabango, C. M., & Asa, A. R. (2015). Factors influencing e-commerce development: Implications for the developing countries. *International Journal of Innovation and Economic Development*, *1*(1), 64-72.

Kapoor, A. P., & Vij, M. (2018). Technology at the dinner table: Ordering food online through mobile apps. *Journal of Retailing and Consumer Services*, *43*, 342-351.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems*, *44*(2), 544-564.

Kotler, P., Keller, K. L., Ancarani, F., & Costabile, M. (2014). *Marketing management 14/e*. Pearson.

Laohapensang, O. (2009). Factors influencing internet shopping behaviour: a survey of consumers in Thailand. *Journal of fashion marketing and management: An international journal*, *13*(4), 501-513.

Lee, C. S. (2001). An analytical framework for evaluating e- commerce business models and strategies. *Internet Research*.

Li, J., & Ohlsson, H. (2017). Online grocery shopping: the key factors influencing consumers' purchase intention-A study based on consumers in Sweden.

Lim, W. M., & Ting, D. H. (2012). E-shopping: an Analysis of the Technology Acceptance Model. *Modern Applied Science*, *6*(4), 49.

Liu, S. Q. (2005, August). A theoretic discussion of tourism e-commerce. In *Proceedings of the 7th international conference on Electronic commerce* (pp. 1-5).

Loketkrawee, P., & Bhatiasevi, V. (2018). Elucidating the behavior of consumers toward online grocery shopping: The role of shopping orientation. *Journal of Internet Commerce*, *17*(4), 418-445.

Maehle, N., Iversen, N., Hem, L., & Otnes, C. (2015). Exploring consumer preferences for hedonic and utilitarian food attributes. *British Food Journal*.

Montano, D. E., & Kasprzyk, D. (2015). Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. *Health behavior: Theory, research and practice*, *70*(4), 231.

Morgan Stanley. (2022, Jun 14). *The Surprising Case for Stronger E-commerce Growth | Morgan Stanley*. Retrieved May 8, 2023, from https://www.morganstanley.com/ideas/global-ecommerce-growth-forecast-2022#:~:text=In%20fact%2C%20global%20e%2Dcommerce,an%20estimated%2022%25%20of%20sales.

Morganosky, M. A., & Cude, B. J. (2000). Consumer response to online grocery shopping. *International Journal of Retail & Distribution Management*, *28*(1), 17-26.

Mortimer, G., Fazal e Hasan, S., Andrews, L., & Martin, J. (2016). Online grocery shopping: the impact of shopping frequency on perceived risk. *The International Review of Retail, Distribution and Consumer Research*, *26*(2), 202-223.

Niu, T. (2009). *Strategies for success in the e-grocery industry*. Rochester Institute of Technology.

Noor, N. M., Noranee, S., Zakaria, M. F., Unin, N., & Suaee, M. A. H. M. (2020, February). Online shopping: The influence of attitude, subjective norm and perceived behavioral control on purchase intention. In *Proceedings of the 2020 The 6th International Conference on E-Business and Applications* (pp. 33-36).

Odden, L. (2012). *Optimize: How to attract and engage more customers by integrating SEO, social media, and content marketing*. John Wiley & Sons.

Oglethorpe, J. E., & Monroe, K. B. (1994). Determinants of perceived health and safety risks of selected hazardous products and activities. *Journal of consumer affairs*, *28*(2), 326-346.

Ozili, P. K. (2023). The acceptable R-square in empirical modelling for social science research. In *Social Research Methodology and Publishing Results: A Guide to Non-Native English Speakers* (pp. 134-143). IGI Global.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. McGraw-hill education (UK).

Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS quarterly*, 115-143.

Pechtl, H. (2003). Adoption of online shopping by German grocery shoppers. *The International Review of Retail, Distribution and Consumer Research*, *13*(2), 145-159.

Peña-García, N., Gil-Saura, I., Rodríguez-Orejuela, A., & Siqueira-Junior, J. R. (2020). Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*, *6*(6), e04284.

Ping, T. P., & Wider, W. (2022). Online grocery shopping behavior among consumers in Singapore. *International Journal of Management*, *11*(1), 58-69.

Research and Markets. (2022, December 29). *Global Online Grocery Delivery Services market to grow by $652.45 billion during 2023-2027*. Retrieved May 8, 2023, from https://www.globenewswire.com/en/news-release/2022/12/29/2580590/28124/en/Global-Online-Grocery-Delivery-Services-Market-to-Grow-by-652-45-Billion-During-2023-2027.html

Rosário, A., & Raimundo, R. (2021). Consumer marketing strategy and E-commerce in the last decade: a literature review. *Journal of theoretical and applied electronic commerce research*, *16*(7), 3003-3024.

Ruivos, C. M. (2022). *Consumers´ behaviour towards online grocery shopping* (Doctoral dissertation).

Singh, R. (2019). Why do online grocery shoppers switch or stay? An exploratory analysis of consumers’ response to online grocery shopping experience. *International Journal of Retail & Distribution Management*, *47*(12), 1300-1317.

Sohn, S. (2017). A contextual perspective on consumers' perceived usefulness: The case of mobile online shopping. *Journal of Retailing and Consumer Services*, *38*, 22-33.

Statista. (2021, July 5). *Share of individuals buying groceries online in Turkey 2010-2019*. Retrieved May 8, 2023, from https://www.statista.com/statistics/695613/share-of-individuals-who-purchased-groceries-online-in-turkey/

Sutisna, F., & Handra, T. (2022). The theory of planned behavior influences online shopping behavior. *Aptisi Transactions on Management (ATM)*, *6*(1), 52-61.

Taher, G. (2021). E-commerce: advantages and limitations. *International Journal of Academic Research in Accounting Finance and Management Sciences*, *11*(1), 153-165.

Truong, Y. (2008). An evaluation of the theory of planned behaviour in consumer acceptance of online video and television services. *Truong, Y.(2009). An evaluation of the theory of planned behaviour in consumer acceptance of online video and television services. The Electronic Journal Information Systems Evaluation*, *12*(2), 177-186.

Tsydybey, N., & van Wijk, C. H. (2014). Consumer intentions to buy grocery products online. *Available on: http://arno. uvt. nl/show. Cgi*.

Tyrväinen, O., & Karjaluoto, H. (2022). Online grocery shopping before and during the COVID-19 pandemic: A meta-analytical review. *Telematics and Informatics*, 101839.

Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of marketing research*, *40*(3), 310-320.

Zott, C., Amit, R., & Donlevy, J. (2000). Strategies for value creation in e-commerce:: best practice in Europe. *European Management Journal*, *18*(5), 463-475.