

## **KEY DETERMINANTS OF CHANNEL SWITCHING INTENTION DURING THE COVID-19 PANDEMIC: EVIDENCE FROM AN EMERGING MARKET**

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### **Abstract**

The COVID-19 pandemic has become a global problem with its rapid spread to almost the whole world, impacting many areas, especially health. Therefore, the negative climate created by this pandemic is likely to affect consumers' purchasing behavior. Therefore, this study aims to examine the relationships between perceived offline shopping risk, trust in offline stores, and perceived threat in relation to how this affects consumers' channel switching intentions. For this purpose, data were obtained from 422 online survey participants and analyzed using structural equation modeling. The results show that trust in offline stores has a negative relationship with perceived offline shopping risk, and that perceived risk of offline shopping and perceived threat have a significant positive relationship with consumers' channel switching intentions. These findings contribute to the development of understanding in relation to channel switching intentions in the retail sector. In addition, these findings provide retail managers and practitioners with practical insight into perceived risk, trust, perceived threat, and channel switching intentions during the COVID-19 pandemic.

**Key words:** COVID-19, Channel Switching Intention, Perceived Risk, Perceived Threat

**JEL Code:** M30, M31, M39

### **1. Introduction**

This new type of coronavirus disease, known as severe acute respiratory syndrome or COVID-19 (WHO, 2020a), is thought to have originated from the Huanan Seafood and Live Animal Wholesale Market in Wuhan, Hubei province, China, in December 2019, which is described as a live animal market. The main feature of this disease is its rapid transmission and spread. Therefore, following the emergence of the first COVID-19 cases in China, the disease has spread to many

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countries around the world, most notably USA, Italy, Spain and UK because many countries have either been caught off guard or taken measures late against COVID-19. These conditions have transformed COVID-19, which carries a risk of high-speed transmission, from an epidemic spread to a pandemic (VanderWeele et al., 2020). With COVID-19 spreading almost all over the world in the first months of 2020, the World Health Organization (WHO) officially declared that it was a global pandemic as of March 11, 2020. According to data shared by the WHO in the last week of August 2020, there were approximately 23 million people infected with COVID-19 and approximately 900,000 people who had died (WHO, 2020b). Therefore, as seen from the size of these figures, the COVID-19 outbreak has had a strong negative impact on the world and continues to affect it. According to Atay (2020), the destruction that COVID-19 is causing humanity and the uncertainty about when the outbreak will end are still ongoing.

There have been many disease outbreaks in the world in the past, but they have not spread all over the world to the same extent as the COVID-19 outbreak, remaining isolated instead in a small number of countries. Therefore, the COVID-19 pandemic, which has become a global problem, has affected all humanity in terms, primarily, of health issues, as well as in terms of economic, social, and many other issues (Üstün and Özçiftçi, 2020). Evaluated in economic terms, COVID-19 can affect many sectors such as tourism, automotive, food and beverage, health, and education (Ibis, 2020) because many countries have taken measures such as curfews and the closure of businesses as part of their COVID-19 measures. However, these measures have differed depending on specific countries' risk situations. For example, the curfew in Turkey has been imposed only over the weekends recently, while it was strictly imposed in China until the risk of COVID-19 had decreased to a minimum level. Therefore, the impact on sectors varies from country to country based on the measures taken.

Another issue that may adversely affect businesses, beyond government measures, in the retail sector is the changes that can occur in consumers' purchasing behavior due to COVID-19 because this disease can easily be transmitted to people in close contact through, for example, sneezing, as in diseases such as influenza (WHO, 2020a). Due to the fact that social distance cannot be maintained in physical stores, many consumers may not want to shop from these stores; because COVID-19 can be more contagious through close contact. This is thought to cause consumers to favor sales channels with less close contact. Therefore, a scientific investigation is needed to examine possible changes in consumer behavior regarding purchasing channels during the COVID-19 pandemic.

It has emerged from past scientific studies on pandemics [SARS (2002–2003), swine flu (2009–2010), and Ebola] that trust is critically important during pandemics (Cairns et al., 2013; Fischhoff et al., 2018; R. D. Smith, 2006). Therefore, one of the key issues for consumers during the COVID-19 pandemic is the confidence they have in the business because consumers' trust in the business will reduce their perceived risk of shopping (Li et al., 2014). There has been much research on the relationship between consumer trust and perceived risk in the retail

sector (Alamsyah et al., 2017; Marriott and Williams, 2018; Park et al., 2012). However, this study measures consumers' trust using measures related to the COVID-19 outbreak, rather than trust in commercial transactions or the products available in physical stores. Previous studies on risk perceptions in the retail sector focused more on types of risks other than physical risks. The situation is similar in research on perceived risk and behavioral intention. Therefore, this study will contribute significantly to addressing this issue. In addition, in this study, the relationship between the perceived threats related to the COVID-19 pandemic on the intention of consumers to changing shopping channels constitutes another important contribution. As a result, by examining the relationships between offline store trust, perceived offline shopping risk, perceived threat, and channel switching intentions, this study makes significant contributions to filling this gap in the literature.

## **2. Theoretical Background**

The theoretical background of this study is based on fear appeal theory, psychological reactance theory (PRT) and push – pull – mooring (PPM) theory. According to the fear appeal theory, the threat is an external stimulus perceived by individuals. The appeal of fear creates awareness of the threat in the individual and reveals severity and susceptibility (Witte, 1992). Therefore, there is a linear relationship between the power of fear appeal and the individual's attitude change (Johnston et al., 2015). For example, Addo et al. (2020) argued that the COVID-19 threat could not be controlled and improved under the current circumstances and stated that individuals should avoid or cope with this threat. Based on this point, it has been suggested that consumers can engage in channel switching behaviors as the perceived threat increases. PRT also supports this relationship. According to this theory, individuals can show a psychological reaction to this situation if there is a restriction in their freedom to exhibit behavior. That is, if the freedoms of individuals are limited, they may engage in alternative behaviors to regain their freedoms (Brehm and Brehm, 1981). Therefore, on the basis of this study, it is considered that the threat of COVID-19 restricts the shopping behavior of consumers and may tend to turn to alternative sales channels in order to regain these freedoms of consumers. There are studies in the literature where these theories are proven empirically (Addo et al., 2020; Akhtar et al., 2020; Kavvouris et al., 2020; Paraskevas et al., 2018)

The relationship between perceived risk and channel switching intention is based on push–pull–mooring theory (PPM). This theory is based on immigration laws. The PPM migration model was first presented by Moon (1995) and Lee et al. (2001) and developed by Bansal et al. (2005) in the field of marketing. The main premise of the development of this theory in the marketing field was that national immigration behavior bears a similarity to consumers' supplier-switching behavior. This theory was first based on push and pull factors and, later, the mooring factor was added (Bansal et al., 2005). According to this theory, individuals have push and pull factors to migrate from one place to another. While push factors force the

person to migrate from the original location, pull factors attract the individual to migrate to the new destination (Moon, 1995). Therefore, the channel switching behavior of consumers is similar to the migration behavior (Bansal et al., 2005). In this study, perceived offline shopping risk constitutes the push factor.

### **3. Literature Review**

#### **Perceived Threat**

The concept of perceived threat has emerged as an umbrella concept that encompasses the concepts of perceived susceptibility and perceived severity in many studies (Sadeghi et al., 2018). Champion and Skinner (2008) defined the perceived threat as "personal beliefs about the likelihood of contracting a condition." Perceived severity and perceived susceptibility in this model are the determinants of people's cognitive risk perception level. The limits of the damage caused by perceived violence and dangers are determined; this varies depending on the level of the information the individual has regarding the danger (Hayden, 2009). Perceived susceptibility, on the other hand, is an individual's level of cognitive risk perception regarding whether the individual will be affected by the danger (Brewer and Fazekas, 2007). For example, the risk level of COVID-19's harm to the individual constitutes perceived severity, while the level of risk of developing this disease constitutes perceived susceptibility. If an individual finds himself/herself at high risk of developing a disease or danger, he/she may be more likely to take various precautions against them or avoid them (Champion and Skinner, 2008). For example, Brewer and Fazekas (2007) found that perceived susceptibility triggers preventive behavior.

Therefore, the individual may believe that the measures he/she will take will minimize the effect of the symptoms of the disease. On the other hand, if the individual perceives that the disease he/she may catch will cause severe harm, it is more likely that he/she will take precautions against contracting the disease (Hanson and Benedict, 2002). However, in many studies in the literature, this has not been supported (Cahyanto et al., 2016). In the present study, by utilizing the structures of perceived susceptibility and perceived severity derived from health belief model, the perceptions that individuals have developed regarding COVID-19 are determined. Through perceived severity, the aim is to determine the level of harm that COVID-19 will cause as perceived by the individual if he/she becomes infected with it. Through perceived susceptibility, on the other hand, the aim is to determine the individual's perceived risk of developing COVID-19. These two structures are designed under the umbrella concept of threat, which is perceived in a similar way to studies in the literature, as sub-dimensions.

#### **Trust in Offline Stores**

The issue of trust in many disciplines, such as marketing, sociology, psychology, information systems, consumer behavior, and the economy, have been examined (Colquitt et al., 2007; Doney and Cannon, 1997; Kim et al., 2008; Kramer and Lewicki, 2010; Mayer et al., 1995; Welter, 2012). Although the views from different disciplines have highlighted disagreements in the definition, premises, and consequences of trust (Mayer et al., 1995; McKnight et al., 2002; Smith, 2010), a consensus has been reached across disciplines that trust is an important concept because it is a driving force in shaping human behavior (Doney and Cannon, 1997; Hosmer, 1995; Mayer et al., 1995).

There are many definitions of trust in the literature. For example, trust has been defined as a consumer's belief in suppliers (Sekhon et al., 2013). Similarly, according to Walter et al. (2000, p. 3), trust is "the customer's belief in the supplier's benevolence, honesty and competence to act in the best interest of the relationship in question." Further, there is a belief that the supplier will behave in a reliable, social, and ethical manner without displaying an opportunistic attitude, even though the customer is vulnerable because of, and dependent on, the relationship between the supplier and the customer (Gefen et al., 2003). This indicates that the consumer has a willing belief of vulnerability towards the supplier (Pavlou, 2003). Therefore, the level of faith of the consumer can play a decisive role in the positive or negative conclusion of the purchase process by determining the level of confidence in the supplier. Consumer trust comprises characteristics of competence, benevolence and integrity (Gurviez and Korchia, 2002; Kantsperger and Kunz, 2010). Customers perceive these characteristics that businesses should have as follows:

- Competence is the consumer belief that the business can successfully fulfill its responsibilities with sufficient knowledge, expertise, skills, and leadership in the relevant areas (Kantsperger and Kunz, 2010; Sirdeshmukh et al., 2002; Xie and Peng, 2009);
- Benevolence is consumer belief that the business will act in good faith and act to help the consumer (Ganesan, 1994); and
- Integrity is the consumer's belief that the business will always make clear and accurate statements (Kantsperger and Kunz, 2010).

While trust has been measured as a single dimension in some research (Morgan and Hunt, 1994), in other research it has been measured in a multidimensional way (Fletcher and Peters, 1997; Kantsperger and Kunz, 2010; Moliner et al., 2007). In the literature, it has been stated that offline stores are more reliable than online stores. For example, Li et al. (2014) stated that the risk is high in online shopping because customers cannot visit online stores and cannot view products; therefore, trust in online stores is a more important factor. However, less physical contact can inspire greater confidence in customers during a period of pandemic, such as COVID-19. Because COVID-19 is transmitted through physical contact/proximity, the risk of spreading it is quite high (WHO, 2020a). In online stores, shopping does not require contact with other customers, nor does it allow

other customers to be in contact with the products for sale. Therefore, during this extraordinary period, online stores may be safer than offline stores.

### **Perceived Offline Shopping Risk**

The concept of perceived risk was first addressed by Bauer (1960), who stated that perceived risk is at the center of consumers' decision-making processes before, during, and after purchase. While the customer can perceive the level of existence of some of these risks, he/she cannot predict others. Subsequently, uncertainty and the possibility of negative consequences from the decision to buy create a perception of risk in the consumer (Zhang and Hou, 2017). Koller (1988) predicted that the consumer's decision could have negative consequences, and if the consumer cannot intervene, he suggested that the consumer will perceive this situation as a risk. Therefore, a positive correlation may occur between the consumer's poor perception of results and the level of risk detected in the ability to control the risk (Hong and Cha, 2013).

A review of the literature reveals several studies in which perceived risk has been conceptualized as a multidimensional phenomenon (Cox & Rich, 1964; Jacoby and Kaplan, 1972; Peter and Tarpey, 1975). In previous studies (e.g. Roselius 1971; Cox and Rich 1964; Peter and Tarpey 1975; Mitchell and Greatedox 1993), it has been observed that the risk structure has generally been dimensioned and measured as social risk, psychological risk, time risk, financial risk, physical risk and functional risk. Among these risk dimensions, financial risk has been expressed as loss of money, psychosocial risk as loss of ego (Roselius, 1971), functional risk as the failure of products to perform the desired level of performance, social risk as the product not being accepted by groups (Mitchell, 1998), time risk as the effort and time spent to compensate for the product purchase (Roselius, 1971), and physical risk as the harm caused to the people and the environment in terms of health and safety (Jacoby and Kaplan, 1972).

Perceived risk plays an important and decisive role in consumers' purchasing and evaluation processes. In general, consumers perceive that purchasing processes from online stores are riskier compared to offline stores (Li et al., 2014). However, according to Ipsos (a global market research company), many consumers in Turkey have switched from offline shopping to online shopping because of the COVID-19 pandemic (Ipsos, 2020). This highlights the significant impact of the perceived physical risk in offline stores as well as the effects of the limited curfew. Similarly, Mitchell and Harris's (2005) study concluded that physical risk factors such as cleaning, hygiene, narrow spaces, and less personal safety in offline stores affect consumers' purchasing motivation. Therefore, due to the transmission of COVID-19 as a result of physical and social contact/proximity, consumers may perceive insecurity and health threats regarding shopping in offline stores. This can lead to an increase in consumers' perceived level of physical risk.

Due to the nature of the Covid-19 epidemic, consumers will always experience some risk to physical stores. In the uncertainty caused by this risk, the

most important factor that enables the consumer to act is trust (Luhmann, 2000); because trust is the most important strategy for dealing with uncertain and uncontrollable situations (Kim et al., 2008).

There has been no study of physical risk in the context of epidemics in the retail sector to date, but studies in the field of tourism support this supposition. For example, Cahyanto et al. (2016) found that, as the perceived travel risk increased, a positive relationship with travel avoidance was detected. They assessed the perceived travel risk based on the level of physical risk. In the present study, the perceived risk of offline shopping is assessed on the basis of the level of physical risk, and the uncertainty of the advantages and disadvantages of consumers shopping via offline channels is also assessed.

Due to the nature of the Covid-19 epidemic, consumers will always experience some risk to physical stores. In the uncertainty caused by this risk, the most important factor that enables the consumer to act is trust (Luhmann, 2000); because trust is the most important strategy for dealing with uncertain and uncontrollable situations (Kim et al., 2008). Therefore, consumer trust is an important predictor of perceived risk (Avinandan and Prithwiraj, 2007). Previous research has also measured the relationship between consumer trust and perceived risk empirically (Kim et al., 2008; Teo and Liu, 2007; Wang et al., 2016). For example, Wang et al. (2016) tested the relationship between perceived risk and trust in their meta-analysis and, as a result, proved that trust has a significant impact on perceived risk. Within the framework of this empirical research, the following hypothesis is proposed:

H1: Trust is negatively related to perceived offline shopping risk.

### **Channel Switching Intention**

In the marketing literature, the importance of changes in consumer behavior have been highlighted in many studies, and many factors that cause this behavioral change in consumers have been revealed (Chang et al., 2017; Hsiao et al., 2012). One reason why this issue is so important is the impact it has on the sustainability both of cost and profitability for businesses. For example, Peter (1987) stated that, in addition to affecting word-of-mouth marketing and profitability, consumers' switching behavior increases the cost of acquiring new customers by five times compared to the current customer cost. Therefore, for retailers, consumers' channel preferences and switching habits are an important issue.

Lin and Huang (2014) defined customer switching as “a migration of users from one provider to another.” Based on this definition, the consumer's channel switching intention can be defined as the intention of moving from one channel to another. These channels were basically classified as offline and online. However, Hsiao et al. (2012) described multi-channel shopping behavior as a buying model in which consumers use retail channels such as the internet, catalog and direct

stores, or mobile phones for purchase. Consumers are affected by many factors in the decision-making process in choosing or switching channels. For example, Gupta et al. (2004) suggested that the following five factors affect the choice of channel in the consumer's purchasing decision process: channel risk perception; search effort; evaluation effort; delivery time; and intention to search prices. Consumers' switching behavior can also be affected by the attractiveness of alternatives (Chuah et al., 2017), perceived risk (Choi and Ahluwalia, 2013), commitment (Piha and Avlonitis, 2015), trust (Jung et al., 2017), satisfaction (Manrai and Manrai, 2007), service quality (Jung et al., 2017), and switching cost (Chih et al., 2012). Therefore, consumers consider these factors and make a cost-benefit assessment when choosing or switching channels.

Several prior studies have investigated the relationship between switching behavior intention and perceived risk (Chou et al., 2016; Gupta et al., 2004; Wu et al., 2017). However, the dimensions of the perceived risk in offline and online channel preferences or channel switching intentions have not been considered because the physical risk is minimal. For example, Gupta et al. (2004) placed more emphasis on other dimensions because of the minimum physical risk in shopping. Physical risk has, however, been given more importance in research on tourism. Notably, shopping in offline channels during a period of epidemic increases the physical risk because there is a lot of contact with purchased products and physical interaction with other customers. This condition, which is an advantage in normal processes, can become a disadvantage with the emergence of an epidemic.

The push factor concerns factors that push the consumer from his/her original choice (Jung et al., 2017). Therefore, it is suggested that the perceived risk within the framework of PPM can push the consumer from offline stores to online stores. Wu et al. (2017) detected a positive relationship between perceived risk and channel switching intention within the framework of this theory. In light of the above discussions, the following hypothesis is proposed:

H2: Perceived offline shopping risk is positively related to channel switching intention.

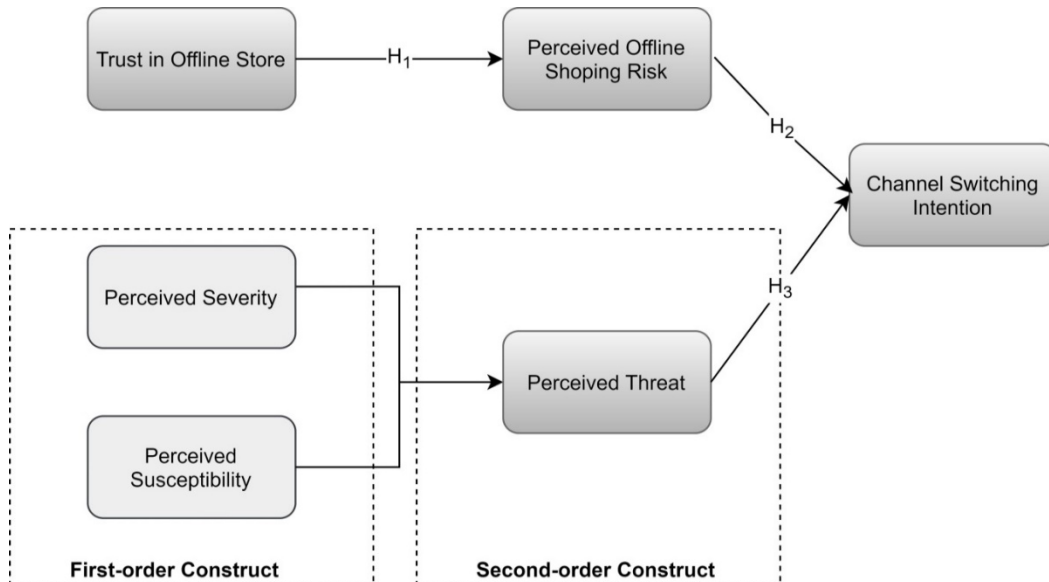
According to Champion and Skinner (2008), if the individual finds a high risk of getting a disease or danger, it may be more likely to take various measures or avoid them. Therefore, COVID-19 can be perceived as a threat by individuals and cause behavioral change since it is an epidemic disease. In the shopping context, consumers can change their existing shopping purchasing channel to avoid COVID-19 disease. From this point of view, we claim that there is a positive relationship between the threat perceived by the consumer and channel switching intention. The basis of this relationship is based on the fear appeal theory and PRT. In light of this information and theories, the following hypothesis is proposed.

H3: Perceived threat is positively related to channel switching intention.

The conceptual framework of the present study is depicted in Figure 1.



**Figure 1.** Research model



## 4. Methodology

### Research Instrument

The present study aims to test the hypothesized relationships between dependent and independent variables, i.e. trust in offline stores, perceived threat, perceived offline shopping risk, and channel switching intentions. Scales used in previous studies relating these variables (Cahyanto et al., 2016; López-Navarro et al., 2013; Madahi and Sukati, 2016; Pookulangara et al., 2011) were adapted to the context of this study, with some changes being made to the statements. In the measurement of all the statements, a five-point Likert scale was used, ranging from strongly disagree (1) to strongly agree (5). Two academicians from the field of marketing were consulted regarding the design of the survey and the clarity of the statements; based on their recommendations, necessary changes were made to improve the clarity and structure of the statements. The survey was designed in English, but translated into Turkish for data-collection purposes.

### Sampling and Data Collection

Data for this study were collected online between March 25 and April 10, 2020 using Google Forms. Approximately 2,000 Turkish consumers were approached to participate in the survey, leading to 440 individuals completing the survey. After excluding invalid responses (for reasons such as providing the same answer or missing data), 422 valid surveys remained and were used for the analysis. The data obtained from participants were restricted to the retail sector in relation to

shopping both through online channels and offline channels during the COVID-19 pandemic. The demographic profiles of the participants were collected and assessed to ensure reliable results. Of these 422 respondents, 66% were male and 34% were female, and 24% were aged between 18 and 30 years, 58% were aged between 30 and 45 years, and 18% aged over 45 years. Within the framework of this research, in order to test the hypotheses and to analyze the conceptual framework, partial-least-squares structural equation modeling (PLS-SEM) was used. It has been observed that the use of this method has increased in the literature due to its relative advantages, such as making accurate predictions in small samples and complex models (Hair et al., 2016). Therefore, the PLS-SEM method was applied, using SmartPLS, in the analysis of the measurement and structural model of this study.

### **Measurement Model**

The validity and reliability of the measurement model was first tested as part of this study. In order to perform this test, a PLS algorithm with 300 iterations was performed. In order for the measurement model to ensure discriminant validity and reliability, the average variance extracted (AVE), composite reliability (CR), and factor loadings must be above the threshold values of 0.5, 0.7, and 0.7, respectively (Hair et al., 2014). The AVE, CR, and outer loadings relating the constructs are presented in Table 1, revealing that AVE and CR exceeded the threshold values, but the outer loadings for some items remained below the threshold value. Hair et al. (2016) stated that, if AVE and CR values do not increase with the removal of items with outer loadings below the threshold value, these items should not be removed from the measurement model, provided that their outer loadings are not below 0.4. Therefore, the outer loadings in Table 1 were not removed from the measurement model since they were above 0.6.

**Table 1.** Validity and reliability of constructs

Construct Name/Items	Loadings	AVE	CR
<b>Trust in Offline Store (TOS)</b> (López-Navarro et al., 2013)		<b>0.61</b>	<b>0.86</b>
Physical stores have information on how to handle the risks caused by the virus.	0.88		
Physical stores protect their customers by minimizing the risks caused from coronavirus.	0.71		
I believe when physical stores say they do as much as possible to minimize risks for customers.	0.77		
Physical stores act in favor of the customer on health-related issues.	0.74		
<b>Perceived Offline Shopping Risk (PR)</b> (Cahyanto et al., 2016)		<b>0.56</b>	<b>0.83</b>
Shopping in the physical store should be avoided due to the coronavirus.	0.69		
I am concerned when shopping at the physical store in this process.	0.78		
Shopping in the physical store is dangerous in this process.	0.73		

People around me seem to avoid shopping in the physical store in this process.	0.76		
<b>Perceived Severity (PS)</b> (Cahyanto et al., 2016)		<b>0.77</b>	<b>0.91</b>
I think I will die if I get sick with the coronavirus.	0.93		
I'm afraid, I can die if I get an outbreak of coronavirus.	0.91		
If my coronavirus test is positive, I can transmit it to my family and friends	0.78		
<b>Perceived susceptibility (PSU)</b> (Cahyanto et al., 2016)		<b>0.53</b>	<b>0.77</b>
If I keep shopping from physical stores in the next few weeks, I may get corona disease.	0.80		
In this process, I have a high chance of exposure to the coronavirus.	0.77		
I continue to shop from physical stores in the next few weeks if I am likely to be exposed to coronavirus, but I will not get sick.	0.61		
<b>Channel Switching Intention (CSI)</b> (Madahi and Sukati, 2016; Pookulangara et al., 2011)		<b>0.88</b>	<b>0.95</b>
I guess that I will make the purchase from the physical store on the internet because of the coronavirus.	0.93		
I plan to do all my shopping over the internet as much as possible instead of going to physical stores because of coronavirus.	0.94		
While shopping, I intend to go from the physical store to online store.	0.94		

In the next stage, the Fornell–Larcker criterion and the heterotrait-monotrait ratio of correlations (HTMT) were used to test whether the structures provided parsing validity. The Fornell–Larcker criterion is assessed by taking the square root of AVE values (Fornell and Larcker, 1981). As shown in Table 2, the AVE square root values were higher than the correlation coefficients, while the HTMT values for the model remained below 0.90 (Kline, 2011). Therefore, the Fornell–Larcker criterion and HTMT values for the measurement model indicated that the discriminant validity was acceptable.

**Table 2.** Discriminant Validity

Latent constructs	1	2	3	4	5
<b>Fornell and Larcker's (1981) procedure</b>					
TOS	0,784				
PSU	-0,214	0,733			
PR	-0,453	0,425	0,750		

PS	-0,068	0,357	0,044	0,879	
CSI	-0,052	0,583	0,259	0,167	0,940
<b>Heterotrait-Monotrait</b>					
	1	2	3	4	5
<b>TOS</b>					
PSU	0,308				
PR	0,564	0,636			
PS	0,087	0,504	0,070		
CSI	0,077	0,872	0,311	0,186	

### Structural Model

At this stage, path analysis was conducted with SmartPLS to test the hypotheses between the proposed structural model and its structures. In this analysis, collinearity, meaning of path coefficients ( $\beta$ ), determination coefficients ( $R^2$ ), t-value and effect size ( $f^2$ ) values were examined. Additionally, blindfolding analysis was run to calculate the predictive relevance ( $Q^2$ ). These values ( $\beta$ , t-value and  $R^2$ ) for the structural model are presented in Table 3. When the VIF (Variance Inflation Factor) values between the variables were examined, it was understood that there was no collinearity problem between the variables because the values were below the threshold value of 5 (Hair et al., 2014).  $R^2$  values for the dependent variables “perceived offline shopping risk” and “channel switching intention” were 0.20 and 0.23, respectively. These findings show that we have an important model because the  $R^2$  value of both dependent variables is higher than the threshold of 0.10 (Falk and Miller, 1992; Sharma et al., 2019).

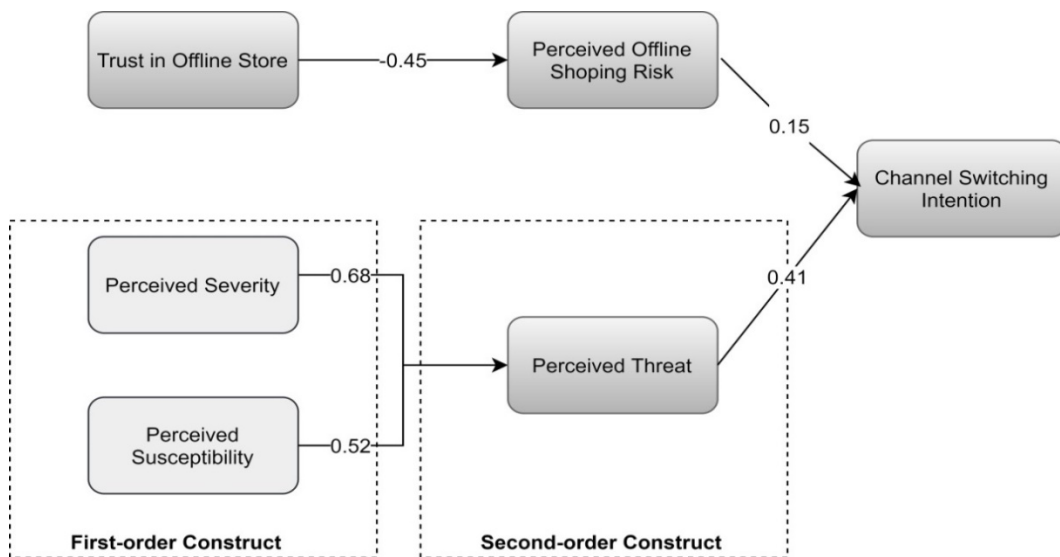
**Table 3.** Structural estimates- hypotheses testing

Hypotheses	$\beta$	t value	$R^2$	VIF	Decision
H <sub>1</sub> : Trust in Offline Store -> Perceived Offline Shopping Risk	-0.45	9.17	0.20	1.02	Supported
H <sub>2</sub> : Perceived Offline Shopping Risk -> Channel Switching Intention	0.15	2.84	0.23	1.06	Supported
H <sub>3</sub> : Perceived Threat -> Channel Switching Intention	0.41	5.54	0.23		Supported

The value of  $f^2$  is used to determine the effect size, which measures the strength of the relationship between two variables.  $f^2$  values for “trust in offline store,” “perceived offline shopping risk,” and “perceived threat” variables were 0.25, 0.12, and 0.21, respectively. According to the  $f^2$  values recommended by Hair et al. (2014), these variables had had a moderate, small, and moderate effect on the dependent variables, respectively. The fact that the  $Q^2$  values are greater than zero indicates that the independent variables have predictive relevance for the dependent

variables (Hair et al., 2016).  $Q^2$  values for “channel switching intention,” “perceived offline shopping risk,” and “perceived threat” variables were 0.19, 0.10, and 0.44, respectively. Finally,  $\beta$  and  $t$  values were examined to assess whether the hypotheses were statistically significant. As shown in Table 3 and Figure 2, the path coefficients of all recommended hypotheses were significant and  $t$  values were within the threshold value. Therefore, H1 ( $\beta=-0.454$ ,  $t=9.172$ ,  $p<0.001$ ), H2 ( $\beta=0.155$ ,  $t=2.820$ ,  $p<0.001$ ) and H3 ( $\beta=0.417$ ,  $t=5.540$ ,  $p<0.001$ ) are supported.

**Figure 2.** Structural Model



## 5. Discussion and Conclusion

Given the limited studies in the literature, the main purpose of this research was to expand our understanding of the determinants of consumers’ channel switching intention during the COVID-19 pandemic. The findings of the study present both theoretical and practical contributions in this field. In this context, this research examined the relationship between consumers’ channel switching intentions, perceived offline shopping risk, perceived threat, and consumer trust/confidence. The research model containing the relationships between these variables was tested using PLS-SEM. The findings of this study are both significant for business managers and address the gap in the literature. All of the hypotheses proposed in this study were supported.

First, according to these research findings, consumers’ trust in offline stores negatively affects perceived offline shopping risk. This finding shows that minimizing the consumer’s perception of risk from shopping via offline stores increases the consumer’s trust in the offline store. Therefore, the actions of businesses in relation to the COVID-19 pandemic can increase consumer trust as well as reduce the perceived risk of shopping. This finding is consistent with

previous studies in the literature (Alamsyah et al., 2017; Marriott and Williams, 2018; Park et al., 2012). However, while many studies have examined the risk–trust relationship of online stores, the fact that physical risk perception was assessed in this study using data obtained during the COVID-19 pandemic makes these findings even more important. Furthermore, other studies have generally focused on other types of risk (social risk, financial risk, psychological risk). In this study, physical risk was the basis of perceived offline shopping risk. Therefore, the findings of this study show that the physical risk proposed in the literature is significant in the current pandemic; unsurprisingly, COVID-19 has a big impact on the importance of physical risk. Therefore, this study expands our understanding of risk perception in the retail sector.

Second, the perceived risk of offline shopping positively affects consumers' channel switching intentions. In other words, consumers consider shopping via offline stores risky, creating the intention of switching to online channels. This finding is similar to previous studies based on perceived risk and channel switching (Chou et al., 2016; Gupta et al., 2004; Wu et al., 2017). However, this study makes significant contributions to the literature due to the dimensional differences of perceived risk. This is because, in other studies, other risk factors were used to determine the reason why consumers switch from offline channels to online channels. The present study indicates that the consumer's perception of physical risk has an important role in the consumer's intention to switch channels. Therefore, these findings suggest that physical risk for retail businesses in the wake of COVID-19 is also important in consumers' behavior. Another important contribution to the literature here is that PPM theory was tested empirically. The use of PPM theory in both online and online retail is very little in the literature and this is an important gap in the literature. Furthermore, it has not been studied under the influence of an important factor such as Covid-19 in previous studies. Hence, this study contributed to the gap in the literature by empirically testing a strong theory such as PPM.

Finally, perceived threat positively affects consumers' intention to switch channels. In other words, consumers see the COVID-19 pandemic as a threat, leading them to less-threatened channels. This finding is similar to previous studies in different disciplines based on fear appeal theory (Kwon and Ahn, 2019). Moreover, in the context of retail industry, PRT and fear appeal theory has been used as the theoretical basis in the relations between different structures (e.g. fear appeal, purchase, e-loyalty). Hence, this study extends the existing literature by exploring the relationship between perceived threat and channel switching intentions structures in the perspective of COVID-19 on the basis of PRT and fear appeal theory. Consequently, this study contributes significantly to this gap in marketing literature.

It is possible to derive several practical conclusions from the findings of this study. First, consumers' trust in offline stores reduces the perceived risk of shopping; it reduces this perceived risk as it increases confidence that business managers are taking effective measures against COVID-19 and keeping their customers informed. This can enable businesses to remain competitive by

preventing customer loss. Second, from a different perspective, it is possible that existing offline stores can minimize potential customer loss by offering online channel alternatives to their customers because they may be perceived as less risky than the existing offline sales channels. Third, according to the findings of this study, the perception of threats from COVID-19 triggers channel switching to channels that are perceived as less threatening. Therefore, reducing both employee–customer and customer–customer physical interaction in offline stores will reduce the perceived threat as it can reduce customers’ likelihood of contracting COVID-19, thus reducing the intention to switch channels.

### **Limitations and Future Research**

The findings of this study make significant contributions to the literature but, due to a number of restrictions, there is a need for further research. The perceived shopping risk variable in this study was based on physical risk. However, if other risk dimensions are included, it is necessary to determine how and to what extent each dimension impacts channel switching behavior, e.g. whether consumers prefer to buy products from online channels although they may be cheaper via physical channels, or whether they will to buy from offline channels despite the physical risks.

Similar work can also be undertaken after the COVID-19 pandemic to see if this behavioral change in consumers is permanent. Another limitation of this study is that the data were derived from one country (Turkey). Because COVID-19 is prevalent in many countries around the world, changes in consumer behavior in different countries and cultures should also be examined.

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