Erzincan Binali Yıldırım Üniversitesi
İktisadi ve İdari Bilimler Fakültesi Dergisi
Erzincan Binali Yıldırım University
Journal of Faculty of Economics and Administrative Sciences

IMPACT OF COVID-19 OUTBREAK ON CONSUMER BEHAVIORAL RESPONSES IN THE TURKISH CONTEXT

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ABSTRACT

Covid-19 pandemic has a significant effect on consumer behaviours. This study examines four types of consumer behavioral responses with a new conceptual model of panic buying behaviour. The study investigated the influence of perceived scarcity, perceived threat and Covid-19 situational variables on consumers' brand switching, product trial, purchase acceleration and stockpiling behaviours during the early times of pandemic. Using an online survey, the data were obtained from 262 Turkish consumers. The findings revealed that consumers' perceived threat during the pandemic has significantly correlated with brand switching, product trial, purchase acceleration and stockpiling behaviours, whereas the perceived scarcity has only influenced the product trial behaviours. Finally, situational variables were found to have a statistically significant influence on brand switching and product trial behaviours. The results acknowledge the importance of preparation of the brands and retailers for effective and quick responses to consumers in the face of an extraordinary social situation such as pandemic.

Key Words: COVID-19 Outbreak, Consumer Behavioral Responses, Perceived Scarcity, Perceived Threat, Situational Variables

TÜRKİYE BAĞLAMINDA COVID-19 SALGININ TÜKETİCİNİN DAVRANIŞSAL TEPKİLERİ ÜZERİNDEKİ ETKİSİ

ÖZET

Covid-19 salgını, tüketici davranışları üzerinde önemli bir etkiye sahiptir. Bu çalışma, yeni bir panik satın alma davranışı kavramsal modeliyle dört tür tüketici davranış tepkilerini incelemektedir. Çalışma, salgının ilk zamanlarında algılanan kıtlık, algılanan tehdit ve Covid-19'un durumsal

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Geliş Tarihi: 03.03.2021 / Kabul Tarihi: 14.12.2021 Çalışma Türü: Araştırma Makalesi

faktörlerinin tüketicilerin marka değiştirme, ürün denemesi, satın almayı hızlandırma ve stoklama davranışları üzerindeki etkisini araştırmaktadır. Araştırma verileri, çevrimiçi anket aracılığıyla 262 tüketiciden elde edilmiştir. Covid-19 sırasında tüketicilerin algıladığı tehdidin marka değiştirme, ürün denemesi, satın almayı hızlandırma ve stoklama davranışlarıyla önemli ölçüde ilişkili olduğu, ancak algılanan kıtlığın yalnızca ürün deneme davranışını etkilediği sonucuna ulaşılmıştır. Son olarak, durumsal faktörlerin marka değiştirme ve ürün deneme davranışları üzerinde anlamlı bir etkiye sahip olduğu ortaya konmuştur. Araştırma sonuçları, pandemi gibi olağanüstü bir sosyal durum karşısında markaların ve perakendecilerin tüketicilere etkili ve hızlı yanıt vermeye hazırlanmasının önemini göstermektedir.

Anahtar Kelimeler: COVID-19 Salgını, Davranışsal Tüketici Tepkileri, Algılanan Kıtlık, Algılanan Tehdit, Durumsal Faktörler

INTRODUCTION

The pandemic has already influenced the consumption patterns due to its spillover effects such as lockdowns, social distance policies on social life (Brizi et al., 2020; Chesbrough, 2020; Kirk and Rifkin, 2020; Wang et al., 2020; Sheth, 2020; Sigala, 2020). Shaikh (2020) argues that after the Covid-19 pandemic, there could be permanent changes in consumer behavior resulting in changes of marketing strategies accordingly (Shaikh, 2020, p. 408). Such expected changes might arise from the perception of consumers during the coronavirus epidemic due to the uncertain environment and threats such as scarcity, physical environment as well as other threats perceived by consumers. Sternquist and Goldsmith (2018, p. 135) state that, stockpiling or hoarding behaviours of consumers occur as a result of certain situational factors including scarcity of the products or risks about product availability in stores which have been arisen by Covid-19 outbreak.

This is evident in several examples of data that report changes in consumers' behaviours during pandemic. For instance, it has been reported that the price of food and hygiene product categories are skyrocketed (Google, 2020; Nielsen 2020; PwC, 2020). As another illustration, Ipsos (May, 2020) found that panic buying behaviours caused scarcity in physical stores which result in consumers brand switching, stockpiling and product trial behaviours during the pandemic. He also mentions that 53% of consumers go to shops and supermarkets less often than before, 43% of them buy more quantity, and 14% of them use online shopping channels more than before. All these reports point out to the fact that essential needs have had priority during the epidemic, which could reflect the notion of perceived scarcity, perceived threat by consumers and situational facts.

Recently, a considerable number of studies have examined consumer behaviours during Covid-19 outbreak. For instance, Baker et al., (2020) found that consumers are inclined to stockpile behaviours which led to a dramatic increase in household expenditures. Rogers (2020) reports changes in brand preferences among consumers favouring those brands that have taken effective and rapid measures in the face of pandemic which will be also effective for future purchase behaviours of the consumers. Another study was done by the Zion and Zion marketing agency (2020) who conducted a countrywide survey study of 509 consumers to understand the possible long run effects of COVID-19 outbreak on the consumer behaviour; the research findings revealed brand switching is a common behaviour among consumers due to perceived scarcity. Invariably, Nguyen et al., (2020) found that situations arising from Covid-19 pandemic such as lockdowns, social distance, closing stores, and stressful atmosphere in closed spaces have a positive correlation with the change of the shopping channel from offline to online. Wang et al., (2020) argued that Covid-19 crisis has brought the issue of food security for consumers to

a global level; his findings revealed that consumers have stockpiled and tended to pay higher prices as the result of uncertainty and threat for food security.

Covid-19 outbreak and consumer behaviour studies have shown several aspects of change in consumer behaviour; which are mostly stockpiling, changing in channel and brand preferences as well as change in priorities for household essentials (e.g. Addo et al., 2020; Sheu and Kuo, 2020; Zion and Zion Report, 2020). However, psychological patterns such as perceived scarcity and perceived threat arising from Covid-19 epidemic, and Covid-19 situational issues have not been addressed in light of consumer behavioural responses. In General, studies on perceived threats and perceived scarcity have been mostly carried out in the field of psychology (Conway, III et al., 2020; Lee and Seidle, 2012; Murray and Schaller, 2012; Sevi and Eskenazi, 2018; Verhallen and Robben, 1994; Yuen et al., 2020). Furthermore, there are a limited number of studies that examined situational influences in the context of emergencies in consumer behavior research (Morganosky and Cude, 2000) This is not surprising as situational influences research in emergencies is generally embedded in the field of psychology (Janis and Mann, 1977; Samson and Voyer, 2014). Against this background, the present study looks into the preliminary empirical evidence for understanding consumers' behavioural changes and preferences in emergencies related to Covid-19. As such, the results might provide essential information for practitioners to coordinate inventory, sales and response strategies for the brands. Additionally, the study is an attempt to shed light on our theoretical perspective on consumers' behaviours during crises such as epidemics, disasters, economic crisis and so forth.

Owing to the fact that the study intend to contribute to the field of consumer behavioural responses during Covid-19 outbreak, we present a conceptual model which explores the influence of consumers' perception and Covid-19 outbreak situations on the consumer behavioral responses which are; brand switching, purchase acceleration, product trial and stockpiling. Regarding panic buying themes stated in the review study by Yuen et al. (2020), we investigated perceived scarcity, and perceived threat as consumers' perception, and incorporated Covid-19 situational variables into our conceptual model as well as into the analysis of the effect of context in consumer behavioral responses.

The next section of this study presents literature review for formulated hypotheses, the research design including measures, data collection and sample. After that, the findings are presented, followed by the discussion of the outcomes and finally future research recommendations are provided.

1. LITERATURE FOR FORMULATED HYPOTHESIS

1.1 CONSUMER BEHAVIOURAL RESPONSES

Consumer behavioural responses are mostly studied in the context of sales promotion strategies (e.g.discounts, coupons, etc.) which state promotional strategies might change consumer purchase decisions, purchase time and purchase quantity (see: Nasır and Bal, 2016; Gangwar et.al., 2014; Gilbert and Jackaria, 2002; Grover and Srinivasan, 1992). The relevant literature identifies four types of consumer behavioural response namely, stockpiling, purchase acceleration, product trial and brand switching behaviours, which are mostly used in consumer studies in sales promotions literature (e.g.Gilbert and Jackaria, 2002).

Stockpiling behaviour is described as *'buying larger quantities of a product and/or shifting purchase times to buy before the expected time of next purchase'* (c.f: Mela et.al, 1998, p.250). Purchase acceleration refers to consumers purchasing a product earlier than planned (Aggarwal and Vaidyanathan, 2003). Product trial refers to *"a consumer's first usage experience with a brand. It is a critical factor in determining brand beliefs, attitudes, and purchase intentions"* (c.f: Kempf et al., 1998,

p.325). And finally, brand-switching means shift in consumer brand preferences while purchasing (Ghasrodasht, 2018). Consumer responses, however, are not limited by sales promotions as the only factor, some other factors are also influential on buying behaviour, which include economic crisis, public policies and ad hoc natural disasters such as earthquakes, wars and global pandemic (see: Sheth, 2020; Voinea and Filip, 2011).

A number of recent studies (Garbe et al., 2020; Li and Coca, 2020) have been conducted to measure side effects of Covid-19 pandemic on consumer behavioural responses. For instance, for some product categories such as toilet papers or food, these trends have been observed: stockpiling behaviour of consumers, unusual purchases of consumers, increase in product trial for consumers, and preferences towards online shopping(Garbe et al., 2020; Laato et al., 2020; Stanciu et al., 2020). The study of x drawn attention that Covid-19 related uncertainty have emerged in divergently,some consumers are tend to saving resources whereas demand for cheaper products have been increased during the outbreak (Pomerance *et al.*, ,2020).

Another study that was conducted in Chinese context has given support for brand switching behaviours in grocery shopping (Li and Coca). However, more studies are required to provide insights into consumer behavioural responses during the ongoing epidemic crisis. We assume that Covid-19 outbreak has influenced four types of consumer behavioural responses namely; brand switching, purchase acceleration, product trial and stockpiling behaviours.

1.2 PERCEIVED SCARCITY

Scarcity is an ascendant regard of economic behaviour and has a positive effect on preferences only when consumers rely on market forces associated with demand and supply which would cause scarcity (Verhallen and Robben 1994). Perceived scarcity increases when a demanded product is sold-out or there is limited access to products (Hamilton, Thompson, Bone, and Chaplin, 2019). Product scarcity refers to real or perceived lack of access to goods or services available to the consumer both in the short run (e.g.due to stock-outs) and long run (e.g. due to legal restrictions). It may be in the form of limited availability of a specific brand, model or size of the desired product, or unavailability of an overall product category (Grier and Davis 2013).

Perceived scarcity not only can affect consumer preferences, but it may also influence how consumers evaluate alternatives and make choices before their decision journey starts (Hamilton *et al.*, 2014). In addition, Lynn (1991) states that perceived scarcity has an impact on consumers' choices and affects consumers' perceptions of goods or services by incrementing desirability and increased demand. It is also possible that when consumers are confronted with product scarcity, they may delay purchasing or choose an alternative product. For example, when consumers see a desired brand is stock out, they may decide on another substitute brand in the same product line (Hamilton, Thompson, Bone, and Chaplin, 2014).

The effects of product scarcity (Zhu and Ratner 2015) and resource scarcity (e.g.Hamilton et al., 2014; Mehta and Zhu 2016; Roux et al., 2015; Shah et al., 2015) on consumer behavioural responses have been already addressed. Previous studies have declared that consumers' perceived scarcity changes their evaluations of scarce products and stockpiling behaviour (Pan et al., 2020; Sterman and Doğan, 2015), and when consumers perceive that the products they want are scarce, they change their behavioural responses and may embark on panic buying and hoarding behaviours (Gupta and Gentry 2016; Mittal and Griskevicius, 2014; Zhu and Ratner 2015). Considering Covid-19 outbreak influence on consumer perception for scarcity, we assume that perceived scarcity of consumers has an influence on consumer behavioral responses. Thus, we hypothesize:

H1: Perceived scarcity has influence on consumer behavioural responses during Covid-19.

H1a: Perceived scarcity has influence on brand switching during Covid-19.

H1b: Perceived scarcity has influence on purchase acceleration during Covid-19.

H1c: Perceived scarcity has influence on product trial during Covid-19.

H1d: Perceived scarcity has influence on stockpiling during Covid-19.

1.3 PERCEIVED THREAT

According to Taylor (1974), consumers' choice might be influenced by risk-related uncertainties. Wen et al (2009) state that, during a health crisis, an individual's risk perception increases. The degree of risk perceived by an individual is determined by his or her evaluation of the threat of a pandemic, which could be measured by consequences of a disease. When people feel a perceived threat, they naturally develop self-protection behaviours to decrease the risks (Yuen, Li, Ma, and Wang, 2020).

Yuen et al. (2020) state that, in situations where the perceived threat of a pandemic is high, individuals will be more likely to try panic buying to decrease the risk of the pandemic. Hence, panic buying could be viewed as a self-protection behavior to satisfy the safety needs of individuals (Yuen, Li, Ma, and Wang, 2020). In particular, consumers can stock large quantities of supplies, especially to reduce the threat and hence feel safe. For example, by stockpiling, individuals can minimize contact with people and reduce store visits. They can also stock up enough supplies like masks and hand sanitisers to feel safe through the pandemic (Gao and Liu, 2016).

Reasons such as unclear information on a scarcity of goods or out of stock on the retails make consumers feel threatened and lead to their panic buying behaviours (Wijaya, 2020, p. 10). Previous studies have revealed that there are several consumer responses when consumer perceived threat is high, which include panic buying, product trial, stockpiling or increased purchasing (Garbe et al., 2020; Fei et al., 2019; Kim, 2020; Sheu and Kuo, 2020; Wijaya, 2020; Yuen et al., 2020). Sheu and Kuo (2020) found that stockpiling behaviour during a pandemic, which might be considred as a form of self-protection mechanism, is also considered as a way to decrease risk. Therefore, we assume that Covid-19 outbreak has an impact on consumer behavioural responses due to the threat it has posed on society. Thus, we hypothesize:

H2: Perceived threat has influence on consumer behavioural responses during Covid-19.

H2a: Perceived threat has influence on brand switching during Covid-19.

H2b: Perceived threat has influence on purchase acceleration during Covid-19.

H2c: Perceived threat has influence on product trial during Covid-19.

H2d: Perceived threat has influence on stockpiling during Covid-19.

1.4 SITUATIONAL VARIABLES

The impact of situational variables on consumer buying behaviour was a neglected research topic by marketers till Belk (1975) substantial contribution to this field. Belk (1975) defines situational factors as *"all those factors particular to a time and place of observation which do not follow from a knowledge of personal (intra-individual) and stimulus (choice alternative) that have a demonstrable and systematic effect on current behavior* (p. 158)." He assumes that consumers are not only stimulated by object characteristics, they are under -the influence of the certain environment with regard to purchase decisions. Time and space are subunits and environmental settings might extend further. As such, he proposes five dimensions of situations that might be used to understand consumer buying behaviour which are (10 physical surroundings such as store atmosphere and crowdedness of the environment (2) social surroundings such as social interaction during the process of buying, (3) temporal perspective that

means time related variables such as urgency of buying or low seasons, (4) task definition which means the prospect purchase is either for her/himself or for gift , and (5) antecedent states which mean consumer moods like being ill or having anxiety while shopping (Belk,1975).

Morganosky and Cude (2000) noted that situational influences such as health conditions or emergencies have an effect on online shopping motivation. The study especially reveals that consumers with special needs tend to avoid going to physical stores. Gehrt and Yan's (2004) study has given the first evidence showing situational variables (time pressure and task definition) influence shopping behaviour, the study results revealed that store atmosphere, products and brands availability are critical for consumers' preference. Hand et al., (2009) suggest that life events such as getting ill, shopping for older people also could be placed under situational variables that might cause adoption of new channels or products. Moreover, Chocarro et al., (2013) has found physical surroundings and time-related variables have significant influence on channel choice of the consumers; their study concludes shopping context is a significant determinant of consumer buying behaviour. In another study by Muhammad et al. (2016) using three situational variables of temporal perspectives, antecedent states and lifestyle changes, it was found that these situational variables did not have a significant effect on buying behaviour of consumers. Also several studies provide evidence that impulse buying behaviour are driven by situational variables such as time related variables, physical and social surroundings (see: Badgaiyan and Verma, 2015; Foroughi et al., 2012; Longdong and Pangemanan, 2015). Recently, a study conducted by Nguyen et al. (2020) examined situational variables situational factors that emerged within Covid-19 outbreak which found out lifestyle changes such as wearing masks, social distance policy' also affect consumer perception including anxiety due to infection risk in the store; besides there have been time pressure on consumer due to Covid-19 risks and retailer reactions such as increasing promotions and product assortment. It further revealed that Covid-19 outbreaks have changed consumer channel preferences. In the light of previous works, we formulate the following hypothesis:

H3: Situational variables have influence on consumer behavioural responses during Covid-19.

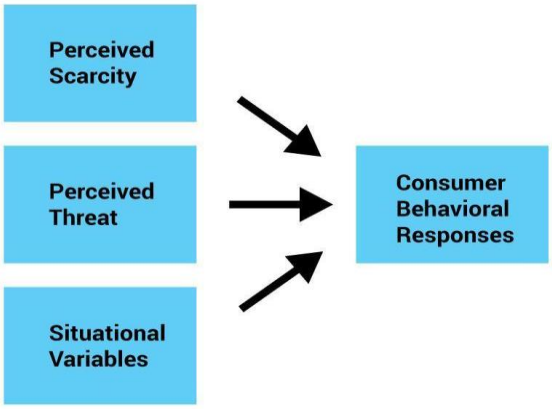
H3a: Situational variables have influence on brand switching during Covid-19.

H3b: Situational variables have influence on purchase acceleration during Covid-19.

H3c: Situational variables have influence on product trial during Covid-19.

H3d: Situational variables have an influence on stockpiling during Covid-19.

Figure 1. Conceptual Model



2. METHODOLOGY

2.1 MEASURES

Using several scales, the researchers developed the questionnaires based on relevant literature. The perceived scarcity measures with four items were adopted from Gupta's (2012) study, and perceived threat measures were adopted from Conway III et al. (2020) containing three items. Covid-19 related situations measure was adopted from work of Nguyen et al., (2020A Likert-scale type survey was used ranging from "strongly disagree" (1) to "strongly agree" (5). And finally, consumer behavioural responses were adopted from Gilbert and Jackaria's study (2002). There are four types of consumer behaviour included in the study as independent variables and these independent variables were measured by single item that stating consumers engagagements on brand switching, purchase acceleration, stokpiling and product trial.While all the scales were out of the existing literature, they were modified and adapted to meet the specific circumstances of COVID-19..

2.2 DATA COLLECTION AND SAMPLE

We used convenience sampling methods which belong in non-probability sampling methods. The questionnaires were distributed through online social channels and targeted people who are active in shopping. Despite the fact that this type of sampling has some limitations for representing the target population, it is the most efficient way to get quick responses during a Covid-19 pandemic crisis and the most convenient way to explore our formulated hypothesis (Lavrakas, 2008, p. 149). Overall, it has been estimated that there are 34,23 million active social media users in the third quarter of 2019, and one of the leading social networks is reported to be Instagram with a penetration rate of %83 (Statista, 2019). Thus, using Instagram could make our samples more representative of the whole population. The data were collected in the period of May-June 2020 in Turkey during which we collected 300 consumer responded questionnaires and 262 valid responses were received at the end. In addition to the above-mentioned variables, demographics of the participants were also included.

As Table 1 demonstrates, the majority of participants of the study are female with %61,5 and %45,4 of them hold a university degree, which is a high percentage. In terms of age group, majority of the participants are young, between 16-23 years of age, %26 between 24-37 is at a rate of %50,8 whereas revenue groups had different rates. Participants most purchased products during epidemic Covid-19 were first food at %59,2 following by cleaning products at %30,5.

Table 1. Sample Characteristics

Gender		N	%			N	%
	Male	101	38,5		Primary	5	1,9
	Female	161	61,5		Secondary	5	1,9

Age	16-23	68	26	Education	Highschool	69	26,3
	24-37	133	50,8		University	119	45,4
	38-56	56	21,4		Graduate	54	24,4
	57-64	5	1,9				
Revenue	No Revenue	56	21,4	Most Purchased Products during epidemic Covid-19	Food	155	59,2
	2324 TL and below	29	11,1		Cleaning Products	80	30,5
	2325-4000 TL	54	20,6		Textile	9	3,4
	4001-6000 TL	69	26,3		Cosmetics	5	1,9
	6001-8000 TL	31	11,8		Electronics	3	1,1
	8001 TL - over	23	8,8		Others	10	3,9

**Minimum wage is 2324 TL.*

2.3 MEASUREMENT PROPERTIES

Independent variables of the study were analysed using exploratory factor analysis to look into each dimension measuring the variables. KMO value was calculated to be 0.840 and Bartlett test was significant at a level less than 0.05 (0.000). This shows the scale is adequate for exploratory factor analysis (Durmuş et al., 2013). The proposed model extracted four factors and the Total variance explained was found to be %70, 61.

The items loading is greater than 0.70. Factor names are as follows: “perceived scarcity”, “perceived threat”, “Covid-19 situations I” and “Covid-19 situations II”. We calculated Cronbach alpha of entire scale reliability to be at a value of α=.77.

Table 3 presents the correlations among the variables of the study. In order to execute hypothesis testing SPSS was used. We used multiple regression analysis to explore relationships between variables, and factor scores as new variables to execute hypothesis testing. Since there were four dependent variables, we conducted analysis in the following order: brand switching behavior, purchase acceleration, product trial and stockpiling behaviour.

Table 2. Exploratory Factor Analysis

Research Construct	Research Items	Factor Loading	Cronbach's alpha
Perceived Scarcity (PS)			**,885**
	While shopping in this store, I found that there were a limited number of products per size, style, and color	,885	
	While shopping in this store, I found that the products of interest were often scarce in my size	,840	
	While shopping in this store, I found that the styles or the products that I was interested in were almost out of stock	,816	
	While shopping in this store, I found that this store sells out and rarely resells the same merchandise/ product	,747	
	While shopping in this store, I found that there were a limited number of products per size, style, and color	,885	
Perceived Threat (PT)			**,821**
	I am afraid of the coronavirus (COVID-19)	,882	
	Thinking about the coronavirus (COVID-19) makes me feel threatened	,854	
	I am stressed around other people because I worry I'll catch the coronavirus (COVID-19)	,837	
	Many physical stores close during the COVID-19 pandemic.		
Covid-19 Situations I(CSI)			**,812**
	Many physical stores close during the COVID-19 pandemic.	,861	
	There are significant health risks associated with visiting physical stores during the COVID-19 pandemic	,720	
	Stores extend their product portfolio during the COVID-19 pandemic		
Covid-19 Situations II (CSII)			**,761**
	Stores offer more sales promotions during the COVID-19 pandemic	,769	
	Many physical stores close during the COVID-19 pandemic.	,752	
	Total Variance Explained %70, 614		
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy .840		
	Bartlett's Test of Sphericity Approx. Chi-Square 978,305		
	df. 55		
	Sig ,000		

Table 3. Correlations among variables

	M	SD	Stockpile	Brand switching	Purchase Acceleration	Product Trial
PS	2,674	,960	,048	,042	,059	,226**
PT	3,50	,986	,286**	,295**	,271**	,167**
CSI	3,845	,876	-,007	-,119	,001	-,109
CSII	2,48	,795	,057	,120	,112	,172**
Stockpile	2,916	1,117	1	,360**	,635**	,552**
Brand switching	2,71	1,262	,360**	1	,375**	,557**
Purchase Acceleration	2,958	1,178	,635**	,375**	1	,390**
Product Trial	2,611	1,222	,552**	,557**	,390**	1

**. Correlation is significant at the 0.01 level (2-tailed).

RESULTS

Regarding linear multiple regression analysis our results indicated that perceived scarcity has an impact on product trial behaviour (β=,226 P <0.05) thus H1d is supported. This is while there were no statistically significant relationships between perceived scarcity and other three consumers behaviours; brand switching, purchase acceleration and stockpiling. It was found that perceived threat had a statistically significant effect on brand switching (β=,295P <0.05), purchase acceleration (β=-.271, P <0.05), product trial (β=,167, P <0.05) and stockpile behaviours (β=.286, P<0.05). This means that H2 is fully supported by the evidence of influence proposed consumer behavioral responses. Since situational variables were considered as two factors, we analysed each one separately. The results show that Covid-19 situations 1 has a statistically significant negative effect on brand switching (β=-,119, P<0.05), whereas Covid-19 situations 2 has a statistically positive significant effect on brand switching (β=.120, P<0.05) and product trial behaviours (β=.172, P<0.05); thus H3 is partially supported.

Table 4. Regression Analysis Result for Brand Switching and Purchase Acceleration

DV: Brand Switching				**DV:** Purchase Acceleration		
IV:	**Beta**	**t**	**Sig.**	**Beta**	**t**	**Sig.**
Perceived scarcity	,042	,713	,477	,059	,988	,324
Perceived threat	,295	5,042	,000	,271	4,545	,000
Covid-19 situations I	-,119	-2,028	,044	,001	,015	,988
Covid-19 situations II	,120	2,049	,041	,112	1,877	,062
R= ,343 R2=,118 **F=**8,561 **p=**0,000				**R=**,299 R2=,089 **F=** 6,289 **p=**0,000		

Note:IV:Independent Variables; DV:Dependent Variables

Table 5. Regression Analysis Result for Product Trial and Stockpiling

DV: Product Trial				**DV:** Stockpiling Behaviour		
IV:	**Beta**	**t**	**Sig.**	**Beta**	**t**	**Sig.**
Perceived scarcity	,226	3,870	,000	,048	,799	,425
Perceived threat	,167	2,854	,005	,286	4,795	,000
Covid-19 situations I	-,109	-1,870	,063	-,007	-,119	,906
Covid-19 situations II	,172	2,938	,004	,057	,965	,336
R= ,347 R2=, 121 **F=** 8,812 **p=**0,000				**R=**,295 R2=,087 **F=** 6,144 **p=**0,000		

Note:IV:Independent Variables; DV:Dependent Variables

DISCUSSION

The present study is an attempt to provide preliminary knowledge on consumer behavioral responses during Covid-19 outbreak by presenting a conceptual model that addresses consumer perception for scarcity and threat and Covid-19 outbreak situations encountered by consumers during Covid-19 outbreak. The findings of the study are based on 262 valid responses that were collected from Turkey by using a convenience sampling method.

The findings have shown that perceived scarcity of the consumers are influential on product trial behaviors. This is in line with Dholakia's (2020) claim that consumer perceived scarcity is an important motivation for purchasing any products on the shelves since Covid-19 outbreak has posed a risk to the availability of the products in stores due to its drastic hit on supply chains. Therefore, new product trials might possibly be practiced by consumers during Covid-19 outbreak. Previous works have also stated consumers might give behavioral responses to product scarcity by choosing alternative products (see: Hamilton, Thompson, Bone, and Chaplin, 2014; Sterman and Doğan 2015). Since consumers could not find the desired products during the pandemic, they bought different products and brands. Moreover, consumers are stimulated when there are "out of stock "products and tend to purchase substitute products (Zhu and Ratner; 2015).

The findings reveal that consumer perceived threat is the strongest predictor of consumer behavioral changes during the pandemic. Perceived threat of the consumers have been positively correlated with four types of consumer behavioral responses which are brand switching, purchase acceleration, product trial and stockpiling. Several studies have confirmed brand switching, product trial and purchase acceleration behaviours in the early period of the crisis where infected cases were higher and when social restrictions were in charge (Advantage Sales Report, 2020; Kim, 2020; McKinsey, 2020). This reflects the fact that individuals' fear of the pandemic and feeling threatened caused them to stockpile products. Our findings in terms of perceived threat and stockpiling relationships are also in line with the arguments of Wijaya's (2020) and Yuen et al. (2020). The authors assert that perceived threat is associated with unusual buying behaviour such as hoarding, stockpiling due to avoidance of risk-related issues during pandemic. Stockpiling caused out-of-stocks in the stores and consequently consumers could not find the products, which created panic among the consumers. As a result, consumers might purchase new products or switch brands or they might accelerate their purchases.

The study also shows that, situational factors during the pandemic had an impact on brand switching and product trial behaviours. Hand et al. (2009) stated that situational factors trigger consumers to start or to stop purchasing, and situational variables such as life events (e.g.emergency) might trigger consumers purchasing behaviours. As our scales extracted two dimension for situational variables called "Covid-19 situations 1", which demonstrates social conditions during the outbreak, closure of the stores, and risk of infections while shopping, and "Covid-19 situations 2", which explains retail strategies to pull consumers by using sales promotions and expanding product portfolios. The findings of the study indicate that "Covid-19 situations 1" was negatively correlated to product trial behaviours, whereas it had insignificant correlations to other consumer behavioral responses. The results indicate that "Covid-19 situations 2" had a positive impact on product trial and brand switching behaviours. The increase in product variety during the pandemic period and the sales promotions in stores might stimulate consumers to try new products and new brands. Our findings are parallel to the findings of Nguyen et al., (2020) and Gehrt and Yan (2004) in terms of change in consumer behaviours during new situational variables.

Overall, the findings of this study reveal that the COVID-19 outbreak has an influence on consumer behaviour. It should be noted that the COVID-19 outbreak has caused restrictions and new regulations on physical stores due to the minimise health risks of visiting such stores. Such factors, in

turn, highly increase the likelihood of consumers brand switching, purchase acceleration, product trial, and stockpiling.

LIMITATIONS AND FUTURE RESEARCH

The generalisability of these results is subject to certain limitations. First, sampling method has its own limitations, other sampling methods such as snowball sampling might be adopted in future studies. Besides, the context of the study is limited to only one country and culture. Moreover, as the survey was done online, the participants were mostly people who have enough knowledge of technology and the internet, therefore some other typical consumers might not have been addressed. Various age groups could give different results. Lastly, further studies might extend our conceptual model by adding several dimensions of consumer behavioural responses during crisis with new developed valid scales.

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