UNDERSTANDING CONSUMER BEHAVIOURS WITHIN THE SCOPE OF THE COVID-19 VACCINE

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ABSTRACT

COVID-19 is one of the important crises which have threatened the social life. Recent news about the vaccine and mutation of the virus has led to a new uncertainty and rapid changes in the fear of COVID-19. In this new and uncertain process, a study on consumer behaviours within the framework of the COVID-19 vaccine is new and would contribute to the literature in the field. A factor analysis was made in order to understand the major effects of the vaccine on consumer behaviours. In the consequence of this study, which were conducted with the participation of 293 people living in Turkey, following the development of the vaccine, a significant relationship was detected between the realisation of the needs, purchase acts, information collection, option evaluation, compulsive purchase and post-purchase behaviour. The results obtained from the study were discussed within the framework of literature.

Key words: Consumer Behaviour, Covid Fear, Vaccine

1. INTRODUCTION

The covid-19 period has been full of different crises and unexpected results when compared to those events that people have come across earlier. Especially quarantine limitations and dynamics that prevent national and international cooperation have threatened both the communal living and economic flow. Correspondingly, both the living quarters and the consumption habits of people have changed. Many researchers have worked on scale development studies that aim to identify Covid-19 fear to understand these changes (Ahorsu et al, 2020; Reznik et al, 2020; Pang et al, 2020). The effect of Covid-19 has been studied in various fields such as media consumption disorders (Bendau, 2020), people who have been driven to suicides (Mamun et al, 2020), depression (Fitzpatrick et al, 2020), sleep disorders (Gualano and others), job satisfaction and quitting jobs (Labrague ve diğerleri, 2020), marketing (Jiang & Wen, 2020), loneliness and self-isolation (Lopes and others, 2020).

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The effect of Covid-19 fear can be seen most in consumer buying behaviours. Impulsive and compulsive buying behaviours are affected by various fears, especially fear of death, fear of sickness, fear of increased prices, etc. (Naeem, 2020). While buying a product or any service, typical consumers go through a decision-making process. On the other hand, consumers who adopt compulsive behaviours go through the same process with different emotions such as impulsive emotions, obsessed emotions, and noncontrollable emotions. Furthermore, they do not think much about the results of buying. People who exhibit Compulsive Buying behaviours are affected by the communication process and events that lead them to anxiety. Many individuals believe that doing shopping more frequently makes them much happier (Banerjee, 2020). Correspondingly, there have been factor analysis studies that aim to identify panic buying behaviours in the Covid-19 environment. In these studies, it has been observed that many different factors such as impulse buying, panic buying, the sense of risk, the fear of death, are used to explain buying behaviours (Lins and Aquino, 2020).

People have been driven to a new uncertainty with the discovery of the Covid-19 vaccine. The effects of the vaccine has still not been found yet. These vaccines that are formulated in many different countries lead people to somewhere between fear and hope (Le and others, 2020; Haynes and others, 2020; Lipsitch & Dean, 2020). People wait for hopeful news or they take precautions that could protect themselves so as to come out of depression. During this process, an individual puts effort into identifying his/her emotions, expressing these emotions, reducing the emotional stress when facing a challenging situation, and trying to feel better while dealing with emotional stress by changing the meaning of stressors or directing the emotions that could be felt as a result of stressors (Kraaij and others, 2002; Baker and others, 2007; Kragh and others, 2017). The Covid-19 vaccine opens a new door into getting away from the sources of stress for people and it can be observed that it is dominating the human behaviours again.

The possibility of mutation of the Covid-19 and the rapidly developed vaccine creates important questions in people's minds. Dr. Tedros Adhanom, who is the Director-General of the World Health Organization, has stated that Covid-19 has mutated, and it is spreading faster (www.cbnews.com). People have been driven to a process that has no clear end and duration with the discovery of the Covid-19 vaccine. Correspondingly, living quarters and consuming behaviours of people have started to change again. Because perception regarding the Covid-19 has been manipulated with the discovery of the vaccine.

In the light of all these developments and research studies on the subject, this study aims to identify factors that affect consumer behaviours during the Covid-19 vaccine period. Considering news regarding the vaccine and mutation of the virus, the sense and the fear of Covid-19 has changed, and a new, uncertain period has started. Therefore, bringing a new perspective to the field by paying attention to this new period and identifying consumer behaviours is the most significant contribution of this study.

2. RESEARCH METHOD

2.1 Survey Procedure and Participants

The main participants of the study involve consumers those over the age of 18 who are living in Turkey. Due to limitations of time, cost, and Covid-19, only accessible participants were included in the sample and the convenience sampling method was used in the study. In this regard, data of the study was collected between 01.12.2020-15.12.2020 from 293 people in an online and accessible setting. The participants' ages ranged from 20 to 51 years old (145 women and 148 men, mean age =36,49 SD=11,83). 6.5% of the participants were high school graduate, 60.4% of them were graduate, and 32.9% of them were holding a master's degree. 6.8% of the participants considered themselves to be in the low-income group whereas 57.3% of them in the medium-income group, and 35.8% of them in the high-income group, respectively. Moreover, 45.4% of the participants stated that they saw the news regarding vaccine accidentally, 41.0% of them expressed that they look for the vaccine news at least once a day, while 13.7% of them stated that they constantly look for the vaccine news.

2.2 Instrument

An online questionnaire made available on the internet was used. Questionnaires that had been fully answered were used. There was a section in the questionnaire which included sociodemographic questions such as gender, age, level of education, news and socioeconomic class. An online survey questionnaire was designed using the questionnaire items that had been successfully used in prior studies on the conscious consumer (Pepper et al, 2009), consumer decision-making styles (Sproles & Kendall (1986), compulsive buying (Faber& O'guinn; 1992; Black et al, 2001; Monahan et al, 1996), the effect of demographic

characteristics on consumers' behaviours (Bashar et al, 2016), the intent of buying (Wright & MacRae, 2007; jamieson & Bass, 1989). The instrument had 5 items. Participants were asked to indicate their level of agreement using a five-point Likert scale ranging from "strongly disagree" to "strongly agree."

3. DATA ANALYSIS

3.1 Instrument reliability and validity

In this study, since the researcher did not have any opinion or prediction about the relationship between the variables regarding the topic, Exploratory Factor Analysis was conducted in order to reveal the probable relationship between the variables. The adequacy of the data for factor analysis was tested with the KaisereMeyereOlkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (Bartlett, 1951; Kaiser, 1970). In addition to KMO, the results of Bartlett's test of sphericity verified the sampling adequacy of the data set for factorability. KMO statistic stands between 0 and 1. If the calculated KMO statistic stands closer to 1, it shows that correlation dispersion is enough for claiming accurate and reliable factors. If the KMO statistic stands over 0.50 and the Bartlett test stands lower than 0.05, it can be said that the sample number is enough for factor analysis (Bartlett, 1951; Field, 2009;). After collecting reliable and valid results in exploratory factor analysis, confirmatory factor analysis was made in order to understand whether it was suitable for the original factor structure and if it was suitable, to what degree it was suitable. General consistency was considered between the model and the Chi-square. The consistency was tested between covariance matrix which belonged to research and the implied covariance matrix which belonged to the model. A meaningful chi-square and valid $\chi 2/sd \leq 5$ showed the compatibleness of the model (Karagöz, 2019). The results of the tests on the validity and the reliability of data obtained within this scope are given in the Result section of the study.

4. RESULT

Preliminary analyses of exploratory factor analysis showed that the scale was appropriate for factor analysis having KMO=.84 and Bartlett's test of sphericity = 833.76, p < .001. Further analysis indicated that the scale was unidimensional accounting for 53.3% of the total variance. The scale also had a high reliability value (α=.87). The factor loadings of the items

ranged from .68 to .83. Skewness and kurtosis values are between acceptable ranges of -2 and +2. (See Table 1).

Confirmatory factor analysis results yielded an acceptable fit to the data: $\chi2/df=2.64$, GFI=.98, CFI=.99, TLI=.97, RMSEA=.08. All factor loadings were significant at p=.05 level (see Figure 1). In the consequence of the correlation test between the items, a positive relationship was found between the purchase and the realisation of the need (r=0.49, p<0.01), between the compulsive purchase and the purchase (r=0.62, p<0.01), between the realisation of the need and information collection ((r=0.66 , p<0.01), and between the purchase and option evaluation (r=0.38, p<0.01) (See Table 2).

5. DISCUSSION

Social issues have immediate effects on consumer behaviours. The COVID-19 pandemic changed both the living space and the consumer behaviour of people. The COVID-19 pandemic has transformed into a new issue following the vaccine production and the vaccine has brought about a strong need to conduct new additional research studies on its relationship with consumer behaviours. This study revealed that the uncertainty resulting from the vaccine production is closely related with consumer behaviours. This is a fragile relationship both for consumers and business organisations. If this uncertainty lasts long, it may lead to daily-changing consuming habits and unpredictable consumer behaviours. WHO Director-General Tedros Adhanom Ghebreyesus said the new strain of the virus spreading in the U.K. is reported to be more infectious (www.cbcnews.com). The CEO of Biontech, Prof. Dr. Uğur Şahin, announced on Bild that the virus has been mutating and they would produce a new version of the vaccine in 6 weeks if it is necessary. This indicates the possibility of this process to produce rapid changes. A significant number of new problems both in social sense and about the production processes may occur.

There have been various studies on risk perception and medical behaviours within the framework of vaccine efforts (Spier, 2001; Nan et al, 2015). However, the diseases and their vaccines covered in these studies, have not posed a direct threat to social life as the COVID-19 does. In addition, consumer behaviours were determined to change due to risk perception and the COVID-19 pandemic ((Lins and Aquino, 2020; Laato et al, 2020). Similarly, the

findings of this study revealed that consumer behaviours are affected by this process. Particularly the COVID_19 vaccine is found to have a positive significant relationship in terms of the realisation of needs and collection of information on consumption. On the other hand, this study showed that the risk perception created by the COVID-19 pandemic led people to stock food and prepare for quarantine (Gerhold,2020) before the vaccine was produced whereas they began to recognise their needs and collect information on consumption after the vaccine. Within the scope of the findings of our study, the highest significant relationship was detected between people's collection of information about consumption and the evaluation of their options (r=0.66) whereas the lowest significant relationship was with compulsive purchase behaviours. In addition, it was also revealed that the post-purchase behaviours observed during the COVID-19 pandemic (M (SD) =2.55 (1.38)) are observed more obviously after the vaccine has been produced .

This study has certain limitations. It covers 293 people, and this number does not represent the whole population in Turkey. There have been a significant number of studies on the social and economic effects of the COVID-19 pandemic in literature however there is not any study on the normalisation process after the COVID-19 pandemic. For this reason, this study is not discussed in detail in terms of the related literature.

For further studies, there is a strong need to determine the perceptions about the vaccine, the sociologic and psychological changes observed in the people vaccinated, the effects of the news on media about the vaccine, and to conduct cross-cultural studies in order to advance and expand our knowledge about the vaccine.

Finally, it is revealed that the best solution for ending the COVID-19 pandemic is to generate an efficient vaccine against it. The COVID-19 vaccine is the most-rapidly developed and used one among those that have been used before (Le et al, 2020; Kaur&Gupta, 2020). For this reason, it is not possible to predict its results and effects. If the virus mutates and the vaccine developed fails to prevent the mutated disease, the vaccine efforts will no doubt continue. It is indeed crucial to make research on the effects of this vaccine and mutation process the duration of which is unpredictable.

Table 1. Factor analysis of the scale

	M (SD)	Factor Loading
Item -1: I realised that I had new needs and I needed to do shopping when I heard that the Covid-19 vaccine has been developed (realisation of needs)	3.17 (1.31)	.83
Item-2: I started to do shopping which I had postponed after the development of the Covid-19 vaccine **(purchase act)**	2.02 (1.07)	.74
Item-3: My interest in the advertisements increased after the development of the Covid-19 vaccine (**Information collection**)	2.88 (1.36)	.71
Item-4: I talk to my friends about shopping more after the development of the Covid-19 vaccine (option evaluation**).**	3.37 (1.31)	.71
Item-5: I do shopping more than I have planned after the development of the Covid-19 vaccine (compulsive purchase)	2.02 (1.05)	.70
Item-6: I started to make complaints and comments on social media about the things I bought during the Covid-19 period (post-purchase)	2.55 (1.38)	.68
KMO		.84
Bartlett's Test of Sphericity		833.76*
Eingenvalue		3.66
Cronbach's α		.87
Variance Explained		53.3 %

*Note: *p < .001; Extraction Method: Principal Axis Factoring*

Table 2. Correlations between items

	Item_1	Item_2	Item_3	Item_4	Item_5	Item_6
Item_1	1,000					
Item_2	,49**	1,000				
Item_3	,66**	,54**	1,000			
Item_4	,62**	,38**	,66**	1,000		
Item_5	,50**	,62**	,48**	,41**	1,000	
Item_6	,43**	,50**	,59**	,52**	,58**	1,000

**. Correlation is significant at the 0.01 level (2-tailed).
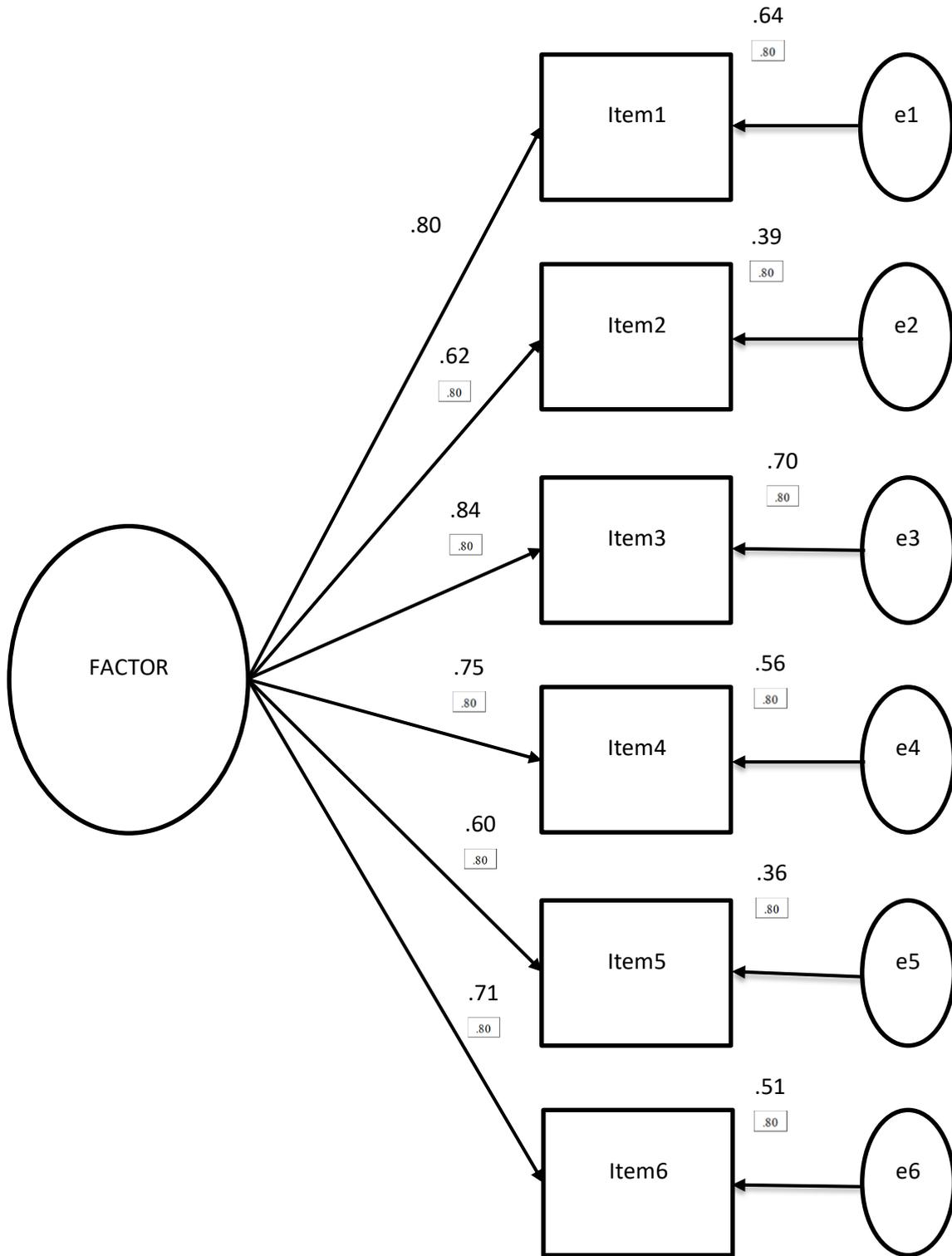
Figure 1:Factor Structure of the Covid-19 Vaccine

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