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Effects of Covid-19 Pandemic on Online Shopping Behavior in Iran

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Abstract

Purpose - the main purpose of this study is to investigate the impact of Covid-19 pandemic on online shopping behavior in Iran. Design/methodology/approach - 484 customers of Digi Kala were selected by simple random sampling. The present study is applied objectively. The present study is a descriptive research in terms of how to collect data and it is a field research in terms of data collection. Structural equation modeling and SPSS 23 and SMARTPLS3 software were used to analyze the data. Findings - our results indicated that Covid-19 pandemic had a positive and significant effect on online shopping behavior in Iran. The level of health and economic fears during Covid-19 pandemic had a positive and significant effect on online shopping behavior in Iran. According to the moderating role of generational differences, Covid-19 pandemic and the level of health fears during the pandemic had a positive and significant effect on online shopping behavior in Iran. Nevertheless, the level of economic fears during Covid-19 pandemic had no significant effect on online shopping behavior in Iran according to the moderating role of generational differences. Originality/value - this work provides a guidance for the researchers and academicians in the field of marketing. Correspondingly, retailers and marketers should train themselves to survive during the global pandemics, and learn innovative approaches to supply the needs according to the changes in customers shopping behavior.

Keywords: Covid-19 Pandemic; Economic Fear; Online Shopping Behavior

1. Introduction

Covid-19 global pandemic has seriously affected societies and economies around the world and it has influenced different sections of society in different ways. This unprecedented situation has numerous consequences for the daily life of consumers and it has significantly changed the way of activity of businesses and consumer behavior (Donto and Gustafson, 2020; Pantano et al. 2020). Surveys after the first wave showed that consumers around the world are looking for products and brands with a newer perspective (Asentor, 2020; MC Kinsey, 2020). The study

examines the history and dynamics of motivational buying patterns in the rise of Covid-19 and evaluates the effect of customers' motivational buying behavior during this situation on the basis of fear (Ahmad et al., 2020).

The current situation after the first wave and at the beginning of the second wave of the Covid-19 pandemic in Europe caused many consumers to reconsider their established shopping habits or even learn a new one (Shet, 2020). For example, some consumers have been forced to do online shopping, door-to-door delivery, or cashless payment that they have never thought before due to severe restraint measures (Pantano et al., 2020). There is a need for managers and retailers to examine changes in consumer shopping behavior and habits to understand what changes they need to adapt to (Verma and Gustafson, 2020).

An essential component to understanding purchasing behavior is marketing segmentation (MC Kinsey et al., 2004). According to Parment (2013), a useful segmentation method is that it is based on generational cohort and homogeneity among generations at the same time due to relative homogeneity between generations. As it was stated by Marjanen et al. (2019), generational cohort membership shares similar values that influence attitudes, priorities, as well as buying habits and behavior. Similarly, Chani et al. (2017) argued that the experiences, beliefs, core values, attitudes, and priorities of generational cohorts shape their behaviors. Thus, in contrast to previous studies, this study uses generational cohort theory as a framework for examining changes in consumer shopping behavior and needs.

The purpose of this study is to investigate the effect of Covid-19 pandemic on consumer behavior and online shopping behavior in Iran. Understanding consumer shopping behavior in facing with this pandemic and beyond is vital for retailers and marketers, as well as business and public policymakers, to be able to apply strategies and tactics to retain existing consumers and attract new ones. This study tends to participate in the analysis of consumer behavior in the situation that the fourth wave of Covid-19 pandemic has begun in the Islamic Republic of Iran.

2. Theoretical framework

Recent studies have shown that perceived shortage of products can significantly affect consumer choices (Pantano et al. 2020). Since the onset of the Covid-19 outbreak (early 2020), consumers have revealed mass behaviors that it has been deviated significantly from their usual shopping behavior. A further consequence of less access to store space, along with greater concerns about consumer health, was the immediate increase in demand for alternative distribution channels. Unexpected regulations that impose social distancing also have a wide impact on consumers' preferred channel for purchase. For example, while online food shopping has been limited over the past decade (Harris et al., 2017), it has increased significantly during the Covid-19 pandemic crisis (Pantano et al., 2020). Also, older consumers with less digital intelligence (see section below baby boomers) began to discover and enjoy online shopping and welcomed the security provided by technology.

Other distribution options that require no human physical activity can be available in the population in addition to the rapid increase of online retail (Crick and Rifkin, 2020). Anti-epidemic measures and calls to stay at home, unless in essential cases, created a large number of orders that need to be delivered to the final consumers and the business development by tens of percent.

Pantano et al. (2020) noted that consumers have reviewed their shopping habits and, at the same time, discovered service benefits that they have never used before. For example, some consumers tended to online shopping, discovered the security and benefits of door-to-door delivery, store selection, and cashless payments. In addition, the authors noted that unexpected regulations by government imposed social distancing and it had a wide effect on consumers' previous preferred channels for purchasing. Lato et al. (2020) emphasized that the government prepared the quarantine situation by closing schools, restaurants, some shopping malls, and public services, which may cause fear of future disruptions and provoke behavioral responses in individuals.

In this context, the consumers may change their shopping habits in the long term. For example, Seth (2020) stated that there are four main areas that control or disrupt consumer habits. These habits include the social context (e.g., changes in the workplace and interactions with neighbors and friends), the implementation of new technology

(including online shopping and delivery), the effect of consumption habits due to new rules (Covid-19 pandemic regulations), and the less predictable context. (Development of the Covid-19 global pandemic).

Of course, there are generally three factors that create new consumer habits. These factors include public policy (European Commission, 2020) and the national level in the selected country, digital technology and its development, and change in demographics statistics that are very important in some European countries (European Commission, 2020).

All consuming and consumer behavior is connected to time and place (Seth, 2020). Crick and Rifkin (2020) argued that history has shown that times of crisis often lead to fundamental changes in society in whole society, and recommended paying attention to consumer behaviors in each of these three phases: reactive behaviors, coping, and dependence on individual then, long-term compromise.

Previous research was conducted by Asentor (2020) and MC Kinsey (2020) in the spring of 2020. Asentor (2020) stated that consumers are deeply concerned about the impact of Covid-19, both in terms of health and economics. The findings show that shopping focuses on more basic needs, people buy more consciously, buy from local stores, and accept digital commerce. In order to manage isolation, consumers have used ICT to communicate, learn, and play, and they continue this method possibly.

As consumers begin to cope with this pandemic crisis, they respond differently to brand activity. According to psychological contract theory, consumers make psychological contract based on implicit promises that they believe a brand will meet, support it with brands (Crick et al., 2013). It is possible that positioning brands with high social responsibility (Crick and Rifkin, 2020) may be punished by consumers if they do not meet their promises during this pandemic. For example, in a special survey of the Edelman Trust Scale (2020) on 12,000 consumers worldwide, two-thirds of consumers reported that their future purchasing decisions would be strongly influenced by brands' responses to the pandemic.

This study was conducted in March during the first wave of the pandemic crisis. Findings show that one-third of respondents neglect actively a brand based on what they consider to be inappropriate for the crisis. In addition, MC-Kinsey Survey (2020) reported that consumers around the world are changing shopping loyalty differently. Retailers and local services are aware that their responses to a crisis situation will significantly affect their business, but because they have very little time to react, they strive to adapt. On the other hand, Pantano et al. (2020) argued that consumers who stopped buying from brands during the first wave of the pandemic crisis tend more to buy again to end up after the pandemic if they felt that brands or shops were empathetic and have done their duty to help.

The current situation has affected businesses around the world. Companies have been previously worried about online store competition, the pandemic crisis will be the last limitation, and they will either go out of business or permanently close a large share of physical stores, it means that consumers will not be able to return to their previous shopping habits.

The recent concept has shown that conscious (planned) or subconscious (impulsive) buying patterns originate mainly through hedonistic (emotional) and utilitarian (practical) stimuli (Ahmad et al., 2020). Numerous studies (Ado et al., 2020) reported that in the context of fear induced by the Covid-19 phenomenon, motivational shopping behavior has been increased significantly worldwide. Therefore, in this research, he also uses the theory of appeal. According to Ahmad et al. (2020), this is an almost forgotten theory.

Appeal theory has not been used frequently in academic research in recent years. It has been used in the marketing and advertising of campaigns, especially in health insurance, life insurance and product security features. According to Ado et al. (2020), fear is emerging as a means of protection against situations in which life is exposing at risk. Lai et al. (2016) stated that appeals include three important concepts: perceived effect, threat, and fear. According to Wagman et al. (2017), appeal can be divided into two groups: fear control and risk control, in which fear control revolves around emotional reactions caused by risk, and risk control guides a compromising behavior

that consumers should avoid. (Asentor, 2020; Ado et al., 2020). Similarly, Ado et al. (2020) argued that risk control guides adaptive behavior to cope with or avoid risk, while fear control directs emotional responses derived from risk. Numerous studies have shown that appeal is an important mediating variable during motivational buying behavior (Ahmad et al., 2020; Ado et al., 2020).

The development of Covid-19 epidemic in the world is currently investigated. The findings of a meta-analysis conducted by Levin et al. (2020) show an exponential relationship between age and mortality rate of Covid-19 infection. Studies show that Covid-19 and its consequences led to fear and anxiety and have become one of the main factors influencing the health and good mood of people around the world (Ahorso et al., 2020). In addition, some studies argue that the onset of fear symptoms among the population is related to age (Chen, 2020).

In general, consumer shopping decisions and choices are the result of careful investigation of the pros and cons and are also influenced by the emotional and sensitive aspects of the products selected. Products that are perceived as overcoming a particular risk or hazard form the fear and can be succeeded in reducing risk perceptions and attract more purchases (Ado et al., 2020). Similar to the view of Ado et al. (2020), this study is also based on the above hypothesis, and as the Covid-19 continues, it predicts that appeal will have a positive relationship with the purchase of selected products.

Research conducted focuses on a purchase evaluation of essential items such as purchase caused by utilitarian and hedonistic stimuli (fear) (Ahmad et al., 2020). There are many different factors that affect the way you shop, but consumer needs can be considered as the first step in processing consumer behavior (Solio, 2002). According to Maslow's hierarchy of needs, the first physiological need usually appears at the time of fear, distress, or deprivation, in this case of Covid-19 pandemic. Basic human needs act as motivation for consumers to react, including shopping activity (Sally, 1992). Basic human needs led to a large increase in demand, which is accompanied by the finish of essential products in many stores and forgetting of unnecessary products during the pandemic shopping behavior (Deloitte, 2020).

According to the theory of generational cohort, each generational cohort is different from the others in several ways and due to different experiences that occur at different times (Ignatius and Hechanova, 2014). The theory further states that generational differences are not determined by an individual's age, but they can be determined by shared effects and the experiences of a particular generation (Jones et al., 2018). Thus, individual groups born during the same time period and grown through the same experiences will share the same values, attitudes, beliefs, and expectations that are constant in lifelong and form a generational identity. In the context of consumer, generational identity significantly influences shopping patterns and shopping behavior (Lisitsa and Cole, 2016).

3. Research Hypotheses

H1: Covid-19 pandemic has a significant effect on online shopping behavior in Iran.

H2: The level of health fears during the Covid-19 pandemic has a significant effect on online shopping behavior in Iran.

H3: The level of economic fears during the Covid-19 pandemic has a significant effect on online shopping behavior in Iran.

4. Materials and methods

4.1. Theoretical model of research

4.2. Statistical population and research sample

The statistical population is from other communities. The statistical population of the research includes the customers of Digi Kala brand.

The sampling method is simple according to the wide and unlimited size of the random statistical population. In this way, the customers of Digi Kala brand in Tehran are asked to complete the questionnaire. The following formula is used to select the sample size due to the infinity of the statistical population.

$$n = \frac{Z^2 S_x^2}{d^2}$$

Z= The value of the standard normal variable, which is 1.96 at the 95% confidence level.

SX= Standard deviation of primary sample

d= considered accuracy for sampling

The sample size is approximately 484 people

Table 1: Structure of the questionnaire

Variable	Questions	Source
Covid-19 pandemic	10-1	(Agre, 2021)
Online shopping behavior in Iran	15-11	(Agre, 2021)
Generational differences	20-15	(Agre, 2021)

4.3. Research methodology

The authors have used different criteria to classify research methods, and as a result, different classifications have been created. According to these classifications, the method of the present research can be expressed as follows: This research is a descriptive research in terms of data collection: because it studies what is. Descriptive research describes and interprets what is and focuses on existing conditions or events, common beliefs, current processes, tangible effects, or expanding trends. It focuses primarily on the present, although it often examines past events and works that are relevant to the current situation. The research method is applied objectively, because we proceed for having the results to solve the problems in the organization.

Measuring perspectives and attitudes are qualitative issues that require special tools in the context of nominal scales to measure variables. Researchers in the social sciences and humanities have tried to design and invent tools that are known as spectrum to measure desires, tendencies, and aspirations. The Likert spectrum consists of five equal parts, and the researcher responds to a number of options with the subject of research in order to determine his tendency about it. The spectrum is composed of a "completely agree" with the "completely disagree" tendency.

4.4. Statistical analysis

4.4.1. Description of demographic characteristics of sample members

In order to better understand the nature of the population studied in the study and familiarity with the research variables before analyzing the statistical data, it is necessary to describe this data as well as the general description of the data in order to identify the pattern governing them and the basis to explain the relationships between the variables. According to the results of the second part of the questionnaire (demographic characteristics), the following information is briefly provided the characteristics of the statistical sample.

Table 2: Description of demographic characteristics of sample members

Gender	Frequency	Percent of frequency
Male	279	59.6
Female	205	40.4
Age	frequency	Percent of frequency
Less than 30 years	154	32
30 to 35 years	106	22
36 to 40 years	85	18
41 to 45 years	97	20

More than 46 years	42	8
Educatations	Frequency	Percent of frequency
Diploma	65	13.4
Associate degree	89	18.4
BA	147	30.4
MA	132	27
Ph.D	51	10.8
History of using Digi	frequency	Percent of frequency
Below 5 years	192	39.6
5 to 10 years	131	27
11 to 15 years	109	22.5
More than 16 years	52	10.9

4.4.2. Descriptive characteristics of research variables

Descriptive statistics includes a set of methods used to collect, summarize, classify, and describe numerical facts. In fact, these statistics describe the data and information of the research and provide a general plan or pattern of data for faster and better use of them. In a summary, the characteristics of a group of information can be expressed using the appropriate use of descriptive statistics. Central and dispersion parameters are used for this purpose. The function of these criteria is that the main characteristics of a set of data can be expressed as a number, and thus, in addition to helping to better understand the results of a test, it facilitates the comparison of the results of that test with the tests and other observations.

Table 3: Descriptive characteristics of research variables

Generational differences	Online shopping behavior in Iran	Covid-19 pandemic	
2.746	3.117	3.408	Mean
2.5	3	3.5	Medium
1	1	1	Minimum
5	5	5	Maximum

4.4.3. Determining the reliability of questionnaire

The reliability of an instrument which is interpreted as reliability, accuracy, and reliability, is that if a measuring instrument made for measuring a variable and industrial is used in similar conditions at another time or place, similar results are obtained. In other words, a reliable tool is a tool that has the property of reproducibility and measuring the same results. In this study, Cronbach's alpha test was used to assess the reliability of the questionnaire.

Table 4: Validity analysis or reliability of items related to the main research variables

Reliability static of items of main variables of research				
Reliability status	Cronbach's alpha	Items	Number of items	Main variables of research
Reliability	0.953	10-1	10	Covid-19 pandemic
Reliability	0.775	15-11	5	Online shopping behavior in Iran
Reliability	0.749	20-15	5	Generational differences

4.5. Research models

4.5.1. Structural model in significant mode (t-value)

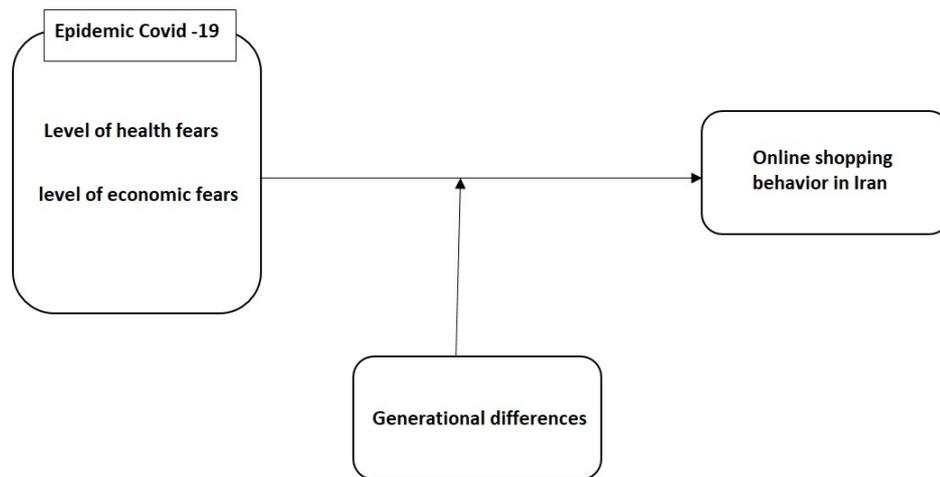


Figure 1: Conceptual model

4.5.2. Structural model output in standard mode (path analysis)

Path coefficients are in standard mode and their values vary between +1 to -1. The more the value of the path coefficient is close to one or negative one, influencing that path is more. The standard coefficients of the external models (factor loads) in a way indicate the validity of the structure. The path coefficients of the external models vary between 0 and 1. The maximum value in this model belongs to the effect of blue color to enjoy. Coefficient of determination is calculated for endogenous conceptual variables and shown inside a variable ellipse.

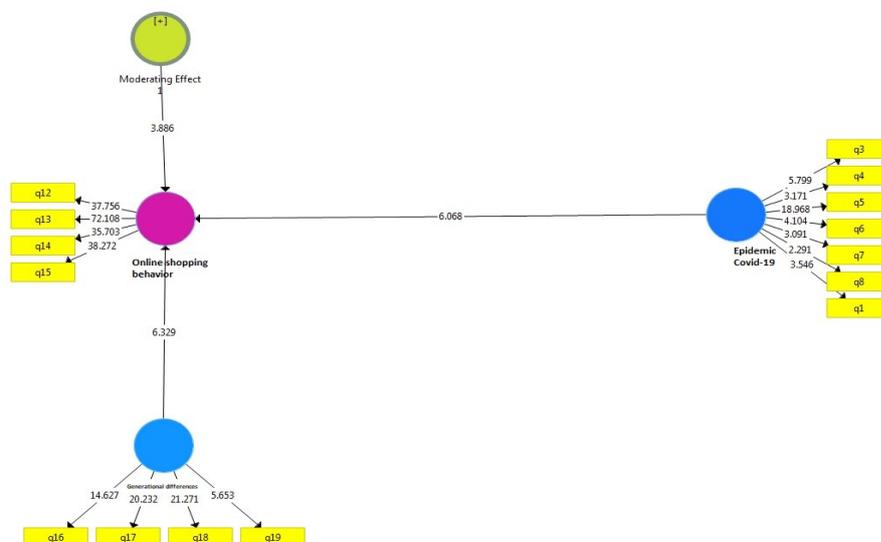


Figure 2: Output of the main structural model in a significant mode (t-value)

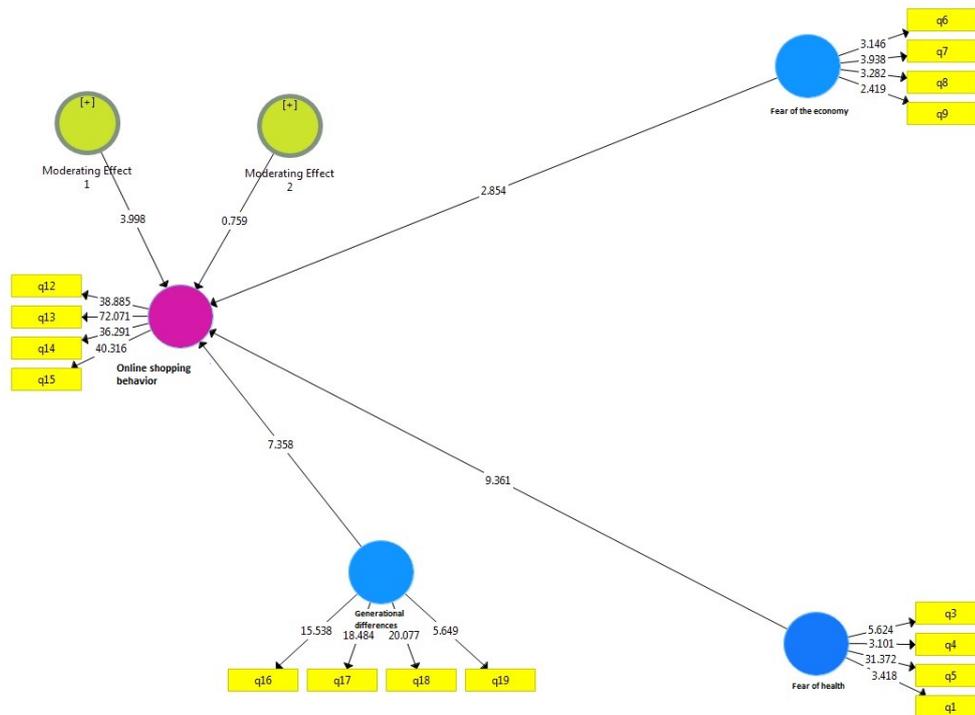


Figure 3: Output of structural sub-model in t-value mode

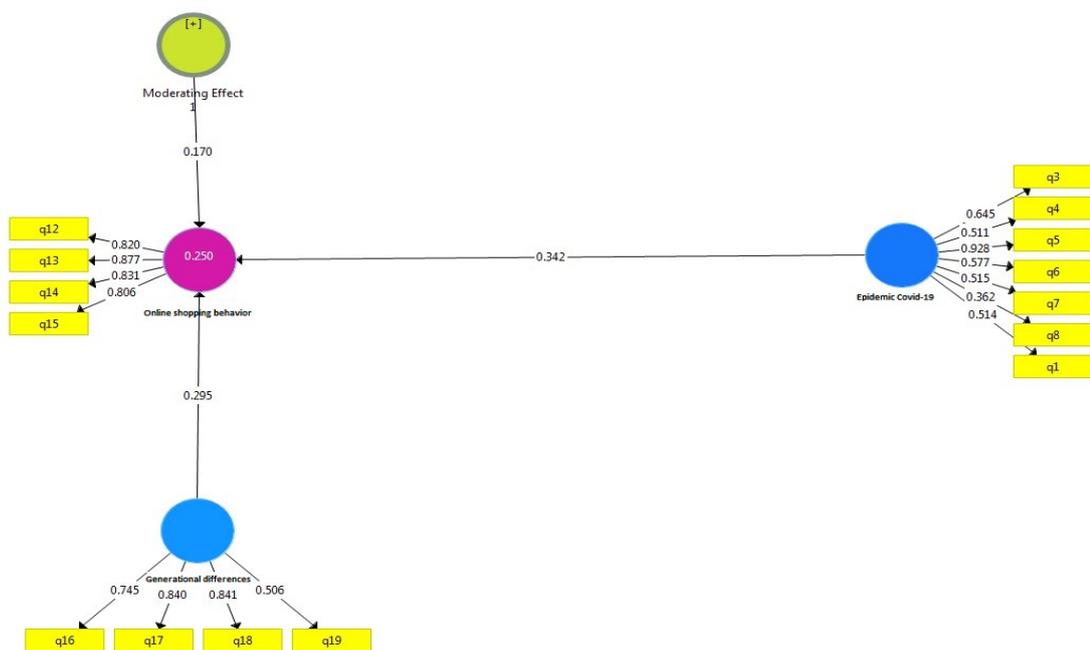


Figure 4: Main structural model output in standard mode (path analysis)

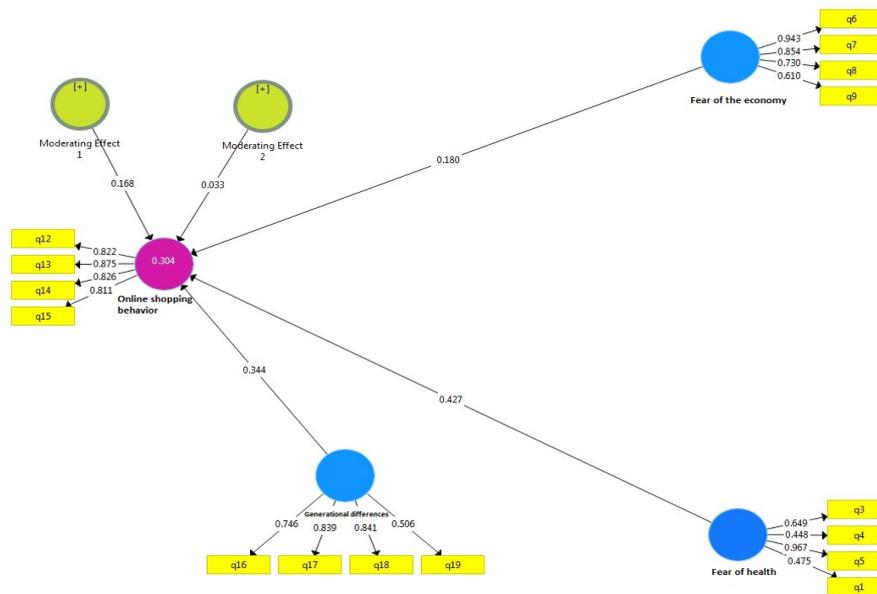


Figure 5: Structural sub-model output in standard mode (path analysis)

5. Results

Previous experience with the internet is very important for both early buyers and shopping repeaters. Users under these circumstances will be able to be more confident during their interaction in the electronic market. However, the impact of these factors increases as individuals gain more e-shopping experience. Users who believe their capabilities have a better capacity and understanding about e-commerce, which ultimately leads to more online shopping. Self-efficacy acts as a precursor and it has an indirect effect on final behavior. In addition, self-efficacy is becoming increasingly important after adapting to e-commerce. The e-shopping experience reinforces this perception, so the e-customer who needs more products on the Internet will feel more comfortable and capable.

The Covid 19 borderless virus has been affected economic conditions, increasing and decreasing price of goods and merchandise, relations between countries and their governments, and the opinions of experts and economists around the world, as well as exports and imports of these countries in various fields. The spread of coronavirus in Iran will also have a great impact on the domestic economy; According to economic experts in Iran, the story is a bit more complicated; On the supply side, the economy is facing downward pressure. By the disruption of international trade and even domestic transportation, the value chain of a wide range of products is disrupted and the production capacity of units is reduced due to lack of access to inputs. The levels of fear caused by the outbreak of this virus affect businesses and economic activities in the country from various dimensions. Online stores are the only industry that has been faced fewer economic problems. Therefore, companies that want to compete in the e-marketplace need to understand the type of customers they are looking for and develop their strategy based on whether they want to capture new customers or retain existing customers. Policies should be targeted based on encouraging e-shopping for all e-customers and influencing different perceptions. E-commerce providers will not be able to control e-customer experience levels, but they will be able to develop locations that have choices for customization and then guide e-customers through a trusted shopping experience. E-commerce should provide information about e-commerce specifications, benefits and facilities to potential e-customers. It can be concluded that the Covid-19 pandemic has a positive and significant effect on online shopping behavior in Iran. The level of health and economic fears during the Covid-19 pandemic has a positive and significant effect on online shopping behavior in Iran.

Each generation is associated with brands differently, and they have different goals when shopping. But despite their differences, each generation seeks payment security, easy brand confrontation, and transparent advertising. Of course, great customer service is always the most important thing for all consumers. Consumers of all generations are starting to make more online shopping using smartphones. Each generation welcomes loyalty and reward programs. It is not new that every generation is consisting of people who share major events in history that influence personality behavior, including consumer behavior. Comparisons with Jindrova and Lobudova (2020) using European statistics on income and living conditions showed that some socio-economic determinants between old and new members were not very high; But variable age had the most fundamental effect on self-perceived health. Therefore, it can be concluded that Covid-19 pandemic has a positive and significant effect on online shopping behavior in Iran according to the moderating role of generational differences. The level of health fears during the Covid-19 pandemic has a positive and significant effect on online shopping behavior in Iran according to the moderating role of generational differences. The level of economic fears during the Covid-19 pandemic has no significant effect on online shopping behavior in Iran according to the moderating role of generational differences.

Table 5: Summary of research results

Line	Hypotheses	T Static	Probability	Path Coefficient	Result
1	The Covid-19 pandemic has significant effect of online shopping behavior in Iran	6.068	0.000	0.342	Confirmed
1-1	The level of health fears during the Covid-19 pandemic has a significant effect of online shopping behavior in Iran	9.361	0.000	0.427	Confirmed
1-2	The level of economic fears during the Covid-19 epidemic has a significant effect on online shopping behavior in Iran	2.854	0.002	0.180	Non-Confirmed
2	Covid-19 Epidemic has significant effect on online shopping behavior in Iran according to the moderating role of generational differences	3.886	0.000	0.170	Confirmed
2-1	The level of health fears during the Covid-19 pandemic has a significant effect of online shopping behavior in Iran according to the moderating role of generational differences	3.998	0.000	0.168	Confirmed
2-2	The level of economic fears during the Covid-19 Epidemic has significant effect on online shopping behavior in Iran according to the moderating role of generational differences	0.759	0.461	0.033	Non-Confirmed

6. Discussion and suggestions

Our results suggested that fear is an important determinant of consumer shopping's behavior during Covid-19 pandemic. As expected, health fear was statistically significant for individuals. The reasons for online shopping for us are different examples of different respondents. Our findings also indicated that the performance of online stores was significantly related to the fear of people's health, and among these, the purchase of sanitary ware, medical supplies, electronics, home, and entertainment had the highest frequency consumers. Lifestyle and social environment affect online shopping. Altogether, this work open the doors for a better understanding of the Covid-19 pandemic. In accordance, fear was the most important success factor in controlling the Covid-19 disease epidemic that can affect consumer buying behavior. Of interviewed individuals, the middle-aged and elder people

had a higher level of fears than the young ones, indicating the role of generational differences in controlling the Covid-19 pandemic.

Overall, this work provides a guidance for the researchers and academicians in the field of marketing. Correspondingly, retailers and marketers should train themselves to survive during the global pandemics, and learn innovative approaches to supply the needs according to the changes in customers shopping behavior. For instance, suppliers should implement new communicational skills to better present their goods. In particular, they should how to deal with the fears of consumers, an important factor affecting shopping behavior during the pandemics. To do so, improvements should be applied in online shopping through facilitating and ensuring the delivery and the quality of the goods, respectively. In addition, after-sale services should be guaranteed, including changes, refunds, and withdrawals. However, this study suffers from some limitations that should be addressed in future works. These include: (1) a detailed and deeper documentation of the changes in customers' behavior during the global pandemics, particularly Covid-19, and (2) new conceptual models should be adopted to train the marketers and retailers based on the changes happen in customers shopping behavior.

7. Conclusion

Overall, Covid-19 pandemic caused significant impact on the domestic economy in Iran. This phenomenon adversely affected the suppliers through the disruption of international trade and even domestic transportation. In addition, outbreak driven fear was a major determinant affecting businesses and economic activities in the country. Unlike, online stores have faced the least economic problems. In other words, the level of health and economic fears during the Covid-19 pandemic had a positive and significant impact on online shopping behavior in Iran. Future works should provide a detailed documentation of the changes in customers' behavior and train the marketers and retailers based on the changes happen in customers shopping behavior during the global pandemics.

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