



THE IMPACT OF COVID-19 PANDEMIC ON SAUDI CONSUMER BEHAVIOR

Yosra Missaoui¹, Youssef Al Rashidi²

¹Assistant Professor, Al Yamamah University, KSA

²Assistant Professor, Al Yamamah University, KSA

Abstract

The Covid-19 represents a global disease that made up a great upheaval, and unstable environment and created a number of challenges to consumers around the world. The spread of this virus makes a remarkable change in consumer behavior in the form of new buying patterns such as online shopping, storing non-perishable food, bulk buying, avoidance crowd, and seeking to low contact commerce. Consumers facing this serious threat shifted their consumption patterns and generated various responses all over the world. In Saudi Arabia as in the entire world, the pandemic situation has led to significant and tangible changes about consumer behavior, however, there are no previous studies investigating the impact of the new coronavirus on Saudi consumer behaviour, and scarce are the researches examining this topic in other countries. Hence, in order to fill this academic gap and in order to better understand the impact of this pandemic situation on consumption, this study aims to describe how the Covid-19 pandemic influenced Saudi consumer behavior and to investigate the consumption patterns of Saudi people during the Covid-19. To discuss the emergent trends of consumer buying decisions due to the pandemic, an online survey was conducted with 385 Saudi consumers. The findings revealed that the mental health and the well-being of Saudi consumers were negatively influenced by the pandemic which affected clearly their consumption behavior, and consumers showed a high level of panic buying and health-conscious consumption.

Keywords

Covid-19; Consumer Behavior, Consumer Buying Decision, Consumption Risks, Risk Perception

1. Introduction

Considered as a public health emergency of international concern and being one of the most significant environmental changes in modern history, the Covid-19 pandemic represents a global disease with planet-wide impact, which changed the world, the global economic situation, the social links as well as the consumption decisions. Such changes were reflected by new habits adopted by people, governments, and organizations around the world in order to be protected from such shocking events. After the shocks, the buying decision, as well as, the consumption behavior was clearly impacted and the consumers' responses to such disease were different from one country to another. However, despite the recent literature analyzing the impact of this pandemic on marketing efforts and business continuity, there are still scarce studies discussing the impact of Covid-19 on consumer behavior and on buying decisions, especially in Saudi Arabia where the disease seems to clear influenced the consumer habits.

The influence of Covid-19 on consumer behavior and buying decision seems to be an unexplored and a virgin research area and acts like a "magnet" that attract more and more researchers to investigate it. In order to fill this academic gap and to investigate the impact of this pandemic situation on consumption, the current study emphasizes the importance of analyzing the effect of Covid-19 on the buying decisions, and it aims to examine the consumption patterns of Saudi people during the Covid-19. To achieve our research goals, a literature review is discussed to offer theoretical support explaining the impact of Covid-19 on global consumer buying decisions. Then, empirical research using an online survey is conducted to measure and describe the impact of Covid-19 on the consumption behavior of Saudi people during the lockdown and social distancing measures. The results then is revealed and recommendations are given in order to guide marketers as well as practitioners to synchronize their marketing efforts with the behavior of their customers during and after the Covid-19.

2. Theoretical Development

2.1 The pandemic effects on buyer behavior

The human communities have experienced many pandemics since ancient time. History shows a lot of examples of chaos and spread of diseases over the years and reveals how people generally react and respond to such crisis. Each pandemic generated immediate change in social behavior, economics, public policies, as well as people mentalities and psychology (Butu, et al., 2020). The COVID-19, like any previous pandemics, has triggered major transformations on all levels of contemporary society (Baker, Bloom, Davis, Kost, Sammon, & Viratosin, 2020). The pandemic made a great disorder and insecure environment that influenced all communities all over the world.

No one has expected that a microscopic virus as the COVID-19 can guide the practices of people all over the world. The virus is rapidly reshaping the economy, the consumptions behaviors, as well as, the purchasing habits. Deeply concerned and conscious about the impact of the virus, consumers around the world are adopting new way of thinking, new purchasing habits and new responses to marketing efforts during the crisis. Influenced by both the governmental recommendations, the ministry of health, the new marketing efforts and the mixed feeling of fear, anxiety and panic, consumers responded to the crisis with different manners.

Few researches were conducted to explore consumers' behavior under the Covid-19. Some researchers tried to investigate how the covid-19 influenced the buying decision and the compulsive buying. The research of Nielsen company entitled "COVID-19: Where consumers are heading? ", conducted a survey during the beginning of the pandemic in China then across 74 markets at March 2020 in order to reflect the consumer behavior and attitudes during the coronavirus pandemic. The results of the investigation showed that the impact of Covid-19 on the consumer behavior is different from one country to another. The research has identified six key consumer behaviors reflecting the spending patterns during the outbreak: panic buying, stockpiling of grocery products, increase in e-commerce usage, less sensitivity to the price, more sensitivity to the quality and more focus on safety (Nielsen, 2020).

The literature review revealed that the panic buying, the stockpiling, and the increase of online shopping are the most prominent behaviors associated to the Covid-19. In the following paragraphs, we will try to investigate each one of these behaviors according to the literature review.

2.2. Panic buying

The panic or compulsive buying was noted in different countries in response to COVID-19, for example in China and in the UK (Nielsen, 2020; Hall, 2020). During the early stages of the Covid-19, people start to run out of food, toilet paper, sanitizers, antibacterial wipes and facial masks in order to manage their emotional state of fear and anxiety (Hall, 2020). Panic buying is defined usually as impulsive and impermanent response to anxiety caused by an expected crisis. It is also defined as a behavior showed by consumers where they buy remarkably large amounts or an unusually varied range of products in expectation of a disaster, or when expecting a clear price increase or upstream shortage (Loxton, et al., 2020). By mass purchasing in time of crisis, people thought that they are taking back control' in a world out of control.

The systematic review of the literature done by Yuen et al. (2020) concluded that around half of the more pertinent peer-reviewed articles investigating the panic buying behavior suggest that the panic buying is a herd behavior, generally influenced by the crowd effect and the behavior of the group. People in time of crisis tend to imitate others and to be conform to others' behavior to feel safer. For this reason, panic buying in response to crisis and disaster occurred around the world and was an international behavior.

The study of Jaspal, Lopes, Lopes, & Hubert (2020) examines the psychological and behavioral responses to the pandemic between different socio-demographic groups in United Kingdom, more precisely; it investigates the impact of social network, political trust, and fear of COVID-19 on working from home and compulsive buying. The findings revealed that people reporting COVID-19 symptomatology had been in self-isolation for longer and exhibited much more compulsive buying than those with no symptomatology. Moreover, the study results showed that people with mental health reacted differently to the pandemic by showing less trust in the guidance given by authorities, more fear of COVID-19, and more compulsive buying (Jaspal et al., 2020).

The research of Yuen et al. (2020) suggested that panic buying is influenced by (1) the subjective perception of the menace due to the health crisis and shortage of products; (2) fear of the unknown, that emerge because of negative emotions and uncertainty; (3) coping behavior, which consider panic buying as a solution to discharge anxiety and regain control over the crisis; and (4) social psychology, which represents the impact of the society on the individual. Under the conditions of lockdown, quarantine, and self-isolation, people were menaced by the outbreak and the scarcity of products in the stores, which motivate them to mass buying (Yuen et al., 2020).

During a pandemic, or major societal changes, people tend to feel unable to predict the consequences of such crisis, which increases their level of anxiety, fear and distress (Taylor, 2019; Ballantine, Zafar, & Parsons, 2014). The fear is a common emotional and physiological reaction during pandemic (Ahorsu et al., 2020). The fear is a psychological state or a negative emotion defined by a lack of control, high uncertainty about the outcomes

(Morreall, 1993). Larson & Shin (2018) argued that fear may modify buying behavior rather than the manifestation of the outbreak itself and can urge the customers to find solution as an attempt to minimize the feeling of threat. The fear is a powerful affective response that may drive behavior and influence clearly the consumer's perception, thought, and decisions (Izard, 1991). It also triggers similar feeling in other people with its "contagion effect" (Towers, et al., 2015). As noted by Sneath, Lacey, & Kennett-Hensel (2009), fear push people to buy as it makes them feel more secure (Greenberg 1987), more comfortable (Steketee et al. 2003), and momentarily escaping from the crisis (Ridgway et al. 2006). Thus, the following hypothesis needs to be substantiated: H1. There is a significant and positive relationship between the fear of Covid-19 and the panic buying behavior.

2.3. Stockpiling of grocery products

Stockpiling is defined as a buying activity in which an individual purchases a huge accumulated supply of a product for the future (Ailawadi, Gedenk, Lutzky & Scott, 2007). Stockpiling is a planned human behavior that a big majority of people practices to get ready for an expected future shortage. People stock up in general to make a reserve in case there is a future need. Many empirical investigations highlighted that consumer around the world tend more and more to stockpile the grocery basics and essentials, such as alimentary products in addition to the emergency products due to the restrictions of outside movement (Nielsen, 2020).

The number of scientific articles published mentioning Coronavirus "Stockpiling" peaked clearly during March 2020 to reach around 400 articles around the world, revealing a clear attention by researchers and academics (Brandwatch Consumer Research, 2020).

This trend of stockpiling was due to the fear of COVID-19 spread, uncertainty about the future (Zhang & Yu, 2020), the financial uncertainty, the expectation of a long-term recession as well as, the quarantine policies imposed by the different governments. People are generally motivated to carry out self-protection behavior to mitigate the risk (Yuen et al., 2020). From psychological perspective, stockpiling or hoarding arises from a human's response, either rationally or emotionally, to shortage, and may happen on either the supply or the demand side (Sheu & Kuo, 2020). Being under lockdown, in isolation or concerned about the availability of goods, people cannot perform their usual routines and were motivated to buy items in bulk.

The stockpiling behavior may be explained by different internal and external factors, which shape the consumer's activities and reactions. One of the main factors that influence our buying decision is the perceived risks. The consumers' risk perception refers to the consumer uncertainly about loss or gain in a particular transaction (Murray, 1991). Perceived risks represent the uncertainty about the future (Zhang & Yu, 2020). This uncertainty will directly affect the consumers' purchase intention (Wei et al., 2018, p. 4). The risk perceived concept was developed firstly by Bauer (1960), then by Cunningham (1967) and contained two components: uncertainty and the consequences. The uncertainty is the subjective expectation about the unfavorable consequences of the buying decision. The unfavorable consequences can be in form of waste of money, waste of time, physical harm, social and other damage which would be experienced if the purchase result was negative (Carmen, 2007).

According to Loxton et al. (2020), the global pandemic amplified the consumer uncertainty and intensified the market volatility due to the inexistence of a vaccine. The consumers were motivated to take preventive measures and to rethink their buying decision in order to mitigate the risks perceived rather than maximizing purchase utility. Such behavior is natural as people are in general more motivated by the goal of avoiding mistakes rather than maximizing purchase utility (Mitchell, 1999). This study postulated that: H2. There is a significant and positive relationship between the fear of Covid-19 and the stockpiling of grocery products.

2.4 Health-conscious consumption trend

During the early stages of the Covid-19 pandemic, new consumption needs, new desires and new expectations have emerged and changed the buying behaviors of consumers around the world. The coronavirus created a number of challenges to consumers and shoppers. Consumers have to take protective and preventive actions against this serious health threat. The spread of this virus makes a tremendous change in consumer behaviors in the form of limiting food waste, shopping more health consciously, making more sustainable choices, and shopping more local products (Wright & Blackburn, 2020). During the lockdown, customers become "wellness-oriented" and switched to new products, new brands, new services and new ways of shopping to feel secure and to avoid the risks of contamination (Wright & Blackburn, 2020). Feeling a high need for health care during the pandemic, consumers-initiated health protective measures and increased the buying of health-related products and services.

According to Chen and al. (2020), consumers started buying the goods advised by the healthcare professionals, health ministry and health care providers. People were obsessed more than any time before, to buy sanitizers, antiseptics, facemasks, household cleaning, healthcare products, toilet rolls, antibacterial soap, and medications in order to protect themselves and to feel secure. Whereas, other products were dropped from the consumer buying list and saw a significant decrease in value sales like fast food, sea food, beauty products and luxury products (Nielsen, 2020); Chen, Juntao, Weizhong, Chen, & Till, 2020). For this context, we propose the following hypothesis: H3. There is a significant and positive relationship between the fear of Covid-19 and the health-conscious consumption.

Based on the existing theoretical and empirical researches, this study proposes a conceptual model (Figure 1). To examine the relationship between the independent variables (Fear of Covid-19) and the dependent variables (panic buying, stockpiling behavior and health-conscious consumption), the three hypotheses developed H1, H2 and H3 will be tested.

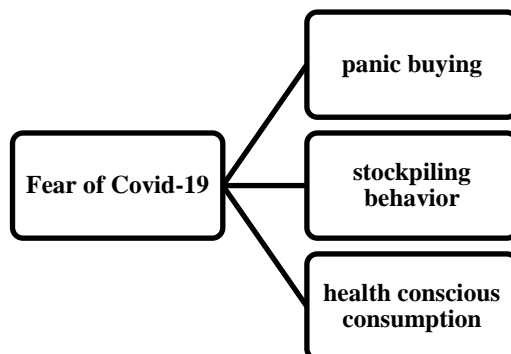


Fig1: Conceptual framework

3. Methodology

Research Design

The purpose of this study is to deepen our understanding of the impact of the Covid-19 on consumer behavior in Saudi Arabia. A descriptive survey research design was chosen using close-ended questionnaires as a data collection instrument in order to investigate the impact of Covid-19 on buying behavior. The study addressed mainly the following questions: What is the impact of the Covid-19 on consumer behavior? What is the impact of the pandemic on the panic buying, the stockpiling of products and health-conscious consumption? What are the risks perceived during the Covid-19? To answer the previous questions, an online survey is conducted to collect data, and then SPSS analysis is carried out by using descriptive statistics, and correlation research design.

Population and sample

The target population for this study is people living in Saudi Arabia and more specifically in Riyadh. Being the capital city of Saudi Arabia, Riyadh is the highest populated city in the country and the largest one in the Arabian Peninsula. Riyadh's population in 2019 is estimated at 7,231,000 according to the United Nations reports (United Nations Department of Economic and Social Affairs, 2020). In order to increase the representativeness of our sample, and to increase its reliability to draw conclusions about the reference population, the sample size was calculated by using Quatrics software, which offers an online sample size calculator that can help the researcher to determine the ideal survey sample size. The 95% confidence level, with a margin of error of 5%, was used to determine the ideal number of participants. The perfect sample size according to Quatrics was equal to 385 participants. Convenience sampling was then adopted in order to easily get access to the data. The sample included people from the two genders (234 men, 151 women) and three different social classes, where 7 % declared themselves as being a part of the working class, 80.5% of respondents have declared themselves to belong to the middle social class; and, 12.5 % belong to the upper social class. The big majority of participants that took part in this study were Saudi, while a minority were foreigners (67.5% Saudi, 32.4% Foreigners).

Sample Characteristics	N	Percentage (%)
Gender		
Male	234	60.8
Female	151	39.2
Age		
Under 18 years old	57	14.8
18-29 years' old	101	26.2
30-39 years' old	119	30.9
40-49 years' old	57	14.8
50-59 years old	25	6.5
60years and above	26	6.8
Nationality		
Saudi	260	67.5
Foreigner	125	32.5
Social class		
Working class	27	7.0
Middle class	310	80.5
Upper class	48	12.5

Table 1 Sociodemographic characteristics of participant (n=385)

Instrument and Measures scale

To measure the impact of Covid -19 on consumer behavior, it was important to select measure scales that closely aligned with theory and have been validated in other research studies. All items used to measure the variables of this study were inspired from previously validated instruments. The fear of covid19 pandemic was assessed with four-item scale inspired from the fear of COVID-19 Scale developed by Daniel, et al., (2020) was used: 1) I am most afraid of coronavirus-19, 2) It makes me uncomfortable to think about Covid-19, 3) Worrying thoughts go through my mind during the pandemic of Covid-19, 4) When watching news and stories about coronavirus-19 on social media, I become nervous or anxious. The participants indicate their level of agreement with the statements using a five-item Likert-type scale. An overall score is calculated by adding up each item score (ranging from 4 to 20). The higher the score, the greater the fear of coronavirus-19.

For the panic buying, it was necessary to find a buying impulsiveness scale that was validated in the literature review and was psychometrically acceptable in other contexts. Due to the scarcity of measure scale of panic buying, we opted for the scale developed recently by (Lins & Aquino, 2020). The measure scale of Lins & Aquino (2020) was developed in order to measure the degree of panic buying during the Covid-19. It includes 7-item statements, developed based on previous literature. The choice of this measuring instrument rather than other ones was motivated by the adequate adaptation and perfect coherence of this scale with the kind of pre-targeted information in our study.

To measure stockpiling behavior, we used the following questions inspired from the study of Wang, Ning, Gao, & Geng (2020): I stockpile more food reserves during the COVID-19 than usual , I purchase a lot more stuff during the COVID-19 than usual.

To measure health-conscious consumption behavior we used the three following questions inspired from the work of Gould (1988): I am very self-conscious about my health when buying products during the Covid-19 pandemic, I am highly engaged in searching for health information when buying stuff during the Covid-19 pandemic, I have greater concerns for health-related products during the Covid-19 pandemic. All questions were scaled in Likert five-point scale. The participants indicate their level of agreement from 'Strongly disagree' to 'Strongly agree'.

To ensure that the questionnaires administered were meaningful and consistent with the content of the original instrument and to have relevant information consistent with the purpose of the research, the first step was checking the facial validity of our measure scales , after reading and checking the items related to fear of covid19, panic buying, stockpiling behavior and health-conscious consumption from three marketing teachers, an agreement was reach that the items define adequately the constructs.

Then a pre-test was conducted with 20 respondents who responded to a first version of this questionnaire, in addition some corrections and improvements were made for some unclear terms.

Reliability and validity of measure scales

To verify internal consistency of the measure scales the Cronbach's alpha (Nunnally, 1978) was used. The reliability tests applied to the four measure scales as well as their items all give an alpha value greater than 0.6, which lead to the conclusion that all the measure scales used in this research are reliable.

Convergent validity is approved for the three first constructs (see Table 2) , Fear of Covid, panic buying, stockpiling behavior as findings shows that the correlations of all the items within the scale's indicators are significant (>0.3 , sig). Some correlations are above $r = .70$, such level of convergent validities above $r = .70$ are recommended (Carlson & & Herdman, 2010). For these three measure scales, it seems clear that all items are correlated to each other and all are significant. For the measure scale of Health-conscious consumption the convergent validity seems to be weak (below $r = .30$) as the last item is not highly correlated with the two first Items measuring health-conscious consumption, which indicated validity issues between the items of the health-conscious consumption measure scale.

Moreover, an exploratory factor analysis (PCA principal component analysis) was held for the different constructs to ensure the measure validity. The results of the factor analysis applied to the data provided by our sample strongly support the existence of four factors, with a total variance explained of 64.6%. In addition, evidences of measure scales validity were provided by the fact that all the items of our research variables have a high contribution and surpassed the factor loadings (0.50) recommended by Hair et al. (1998). The results of the reliability, validity and dimensionality tests are summarized in Table 3.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correlation	Item1	1.00															
	Item 2	.858	1.00														
	Item 3	.784	.896	1.00													
	Item 4	.473	.511	.533	1.00												
	Item 5	.462	.494	.503	.595	1.00											
	Item 6	.300	.342	.332	.295	.415	1.00										
	Item 7	.423	.427	.448	.429	.570	.399	1.00									
	Item8	.517	.559	.560	.537	.701	.452	.714	1.00								
	Item9	.537	.553	.546	.510	.667	.409	.678	.827	1.00							
	Item10	.511	.539	.539	.471	.642	.372	.655	.798	.883	1.00						
	Item 11	.532	.553	.557	.486	.660	.417	.652	.807	.854	.857	1.00					
	Item 12	.520	.562	.556	.498	.612	.350	.613	.763	.846	.832	.840	1.00				
	Item 13	.321	.320	.312	.252	.369	.366	.358	.406	.401	.375	.479	.449	1.00			
	Item 14	.491	.479	.491	.461	.551	.319	.551	.674	.772	.697	.678	.735	.301	1.00		
	Item 15	.442	.444	.479	.441	.493	.289	.533	.598	.617	.600	.628	.618	.342	.672	1.00	
	Item 16	.218	.219	.217	.131	.196	.159	.204	.247	.262	.231	.248	.234	.172	.271	.256	1.00

r = Pearson correlation., Correlations are all significant at the .05 level

Table 2: Pearson correlation matrix of measure scales:

Measures	Mean(SD)	PCA loading	α
<i>The fear of covid19 pandemic (4 items)</i>			0.81
Item 1: I am most afraid of coronavirus-19,	4.257	0.748	
Item 2: It makes me uncomfortable to think about Covid-19,	3.883	0.757	
Item 3: Worrying thoughts go through my mind during the pandemic of Covid19	4.103	0.692	
Item 4: When watching news and stories about coronavirus-19 on social media, I become nervous or anxious	4.194	0.760	
<i>panic buying (7 items)</i>			0.873
Item 5: Fear drives me to buy things to stock at home	4.22	0.825	
Item 6: The fear of not having the products that I need leads me to buying more things	3.78	0.687	
Item 7: I panic when I think that essential products may run out from the shelves, so, that is why I prefer to buy them in bulk	3.31	0.660	
Item 8: Fear drives me to buy more than I usually do.	3.58	0.787	
Item 9: Panic makes me buy more supplies than I really need	4.36	0.748	
Item 10: One way to relieve the feeling of uncertainty is to make sure that I have a good amount of the products that I need at home	3.56	0.730	
Item 11: The feeling of uncertainty influences my buying habits.	4.62	0.825	
<i>stockpiling behavior (2 items)</i>			0.757
Item 12: I stockpile more food reserves during the COVID-19 than usual ,	4.16	0.660	
Item 13: I purchase a lot more stuff during the COVID-19 than usual	4.21	0.825	
<i>Health-conscious consumption (3 items)</i>			0.881
Item 14: I am very self-conscious about my health when buying products during the Covid-19 pandemic,	4.42	0.905	
Item 15: I am highly engaged in searching for health information when buying stuff during the Covid-19 pandemic,	3.88	0.786	
Item 16 : I have greater concerns for health-related products during the Covid-19 pandemic	4.47	0.916	

Table 3. Measurement scales Reliability, validity and dimensionality indicators.

Descriptive statistics and results of regression

	Mean	SD	α coefficient	1	2	3	4
Fear of covid19	4.106	.783	.81	1			
panic buying	3.91	.670	.873	.438	1		
stockpiling behavior	4.18	.567	.757	.070	.359	1	
Health-conscious CO	4.25	.488	.881	.265	.408	.294	1

Table 4: Mean, standard deviation and correlation of the study variables.

Hypothesis	Relationships	VIF	R	F	β	p-value	Decision
1	Fear of Covid19→panic buying	1	.438	11.375	.438	.001	Supported
2	Fear of Covid19→stockpiling	1	.412	5.693	.421	.012	Supported
3	Fear of Covid19→Health conscious consumption	1	.265	5.474	.320	.024	Supported

Table 5. Results of regression

Note: **p < .05.

Table 4 shows the descriptive statistics which include the constructs means, and standard deviations and the reliability of the variables for descriptive purposes. As presented in Table 4, the mean value of the fear of Covid, the panic buying and health-conscious consumption constructs ranges between 3.91 and 4.25. The high mean values of Fear of Covid, panic buying and health-conscious consumption revealed that the majority of surveyed people were anxious during the study period and tend to be urged to mass purchase and to adopt more health-conscious purchasing at this time of crisis. This can be influenced by both the governmental recommendations, the ministry of health, the new marketing efforts and the mixed feeling of fear, anxiety and panic. The table 4 shows also the mean value of stockpiling behavior which is 4.18 and which reveals that almost the majority of respondents tend to stockpile more food and more stuff during the COVID-19 period than usual.

Pearson Correlation and linear regression tests were used to analyze the strength of the relationship between independent variable (The fear of covid19) and the dependent variables (panic buying, stockpiling behaviour, Health-conscious consumption). The aim of the prementioned tests was to check how the independent variables impact the dependent variables. The results of the different linear regression are summarized in table 5.

As expected, the findings indicate a high correlation between the Fear of Covid-19 and panic buying. The R-value, in this case, is .438 which is greater than 0.4. Therefore, the analysis of the results suggests that the Fear of Covid-19 has a significant positive relationship with the panic buying ($\beta=0.438$, $\rho<0.05$). The findings also showed a statistically significant positive relationship between the fear of Covid-19 and health-conscious consumption ($\beta=0.320$, $\rho=0.024$, $\rho<0.05$). In addition, the impact of Fear of Covid-19 on stockpiling behavior seems to be supported and statistically significant because its p-value (.012) is lower than the usual significance level of 0.05 ($\beta=0.421$, $\rho=.012$, $\rho0.05$).

4. Discussion of findings

The results of this study shows that the Saudi consumer's behavior was clearly impacted by the Covid-19. The spread of this virus worried the Saudi consumer, who became more anxious and frustrated and showed a high level of fear. It seems evident, according to the findings that the mental health and the well-being of the Saudi consumers were negatively influenced by the pandemic.

This intense anxiety and fear that Saudi consumers experienced during the pandemic period affected clearly their consumption behavior, and consumers showed a high level of panic buying and health-conscious consumption. During this worrying time, the Saudi consumers showed a sudden increase in their consumption of necessary goods urged mainly by fear. The frustration of facing a shortage of basic supplies, the feeling of uncertainty and their thoughts that essential products may run out from the shelves drive them to bulk buying and buy more things that usually.

However, we noticed that the stockpiling behavior was slightly lower relatively to the panic buying and health consumption, but tend to be high. This finding revealed that the majority of our study participants, tend to stockpile more food reserves and more stuff during the COVID-19 than usual. This stockpiling behavior may be motivated by the need to avoid the crowd and to reduce the frequency of store visit, mainly as consumers were seeking a low contact commerce.

The study also revealed that Saudi consumers adopted a health-conscious consumption at this time of crisis. A greater concern for health-related products was obvious in Saudi Arabia during the Covid-19 pandemic. People showed a high level of health-consciousness when buying stuff during the Covid-19 pandemic and became more involved in searching for health information and health-related products. This can be influenced by both the governmental recommendations, the ministry of health, the new marketing efforts and the mixed feeling of fear, anxiety and panic.

The findings of the study suggest that the fear of Covid-19 generated clearly the panic buying, motivated the stockpiling behavior and urged the health-conscious purchasing. To coop with anxiety, and to mitigate the perceived physical risks, consumers preferred to bulk-buy instead of consuming as usually. To quell those fears, and to avoid contact with stores and people, they stockpiled more foods and basics supplies, than normal period. It was also vital for them to stay informed and follow advised safety precautions, and to care more than anytime to their health and to adopt a healthier consumption.

5. Conclusion

The Covid-19 pandemic was a global phenomenon out of control, an unexpected disease that changed the world, the global economic situation, and the consumption decisions. New habits were adopted by consumers around the world to feel more protected from such shocking events and to cope with anxiety and worries. The clear gap in the literature review analyzing the impact of this pandemic on consumer behavior and on buying decisions, motivated this study to describe the impact of this disease on the consumer habits especially in Saudi Arabia.

To achieve our research goals, an online survey was conducted to measure and describe the impact of Covid-19 on the consumption behavior of Saudi people during the lockdown and social distancing measures. The results then, revealed that the Saudi consumers experienced a high level of anxiety and fear during the Covid-19.

Such emotional state was reflected by an increase of the panic buying, stockpiling behavior and healthier purchasing habits. For many people, the Covid-19 was out of control, a source of uncertainty and associated with negative thoughts and expectations. To mitigate the risk perceived, people were motivated to carry out self-protection behavior, to adopt such stockpiling or and to show more rational decisions by taking care about their health and consuming healthy products. Being under such worrying situation, people cannot perform their usual routines and were motivated to change clearly their consumption habits.

The Covid-19 crisis significantly changed the consumer behavior and will definitely impact the future buying patterns. Marketers must consider such ephemeral changes and expect futures measures to deal properly with similar situations in the future. Marketers must think about solutions to guarantee the business continuity, to avoid any supply chain disruption, to highlight their health and safety measures and to synchronize their marketing efforts with the behavior of their customers during and after the Covid-19. It seems also clear that fear sells, and this can be exploited in advertising by using fear appeals to persuade the consumers to buy.

Works Citation

- Baker, S., Bloom, N., Davis, S., Kost, k., Sammon, M., & Viratosin, T. (2020). *The Unprecedented Stock Market Impact of COVID-19*. Retrieved from <https://www.nber.org/papers/w26945>.
- Ballantine, P., Zafar, S., & Parsons, A. (2014). Changes in retail shopping behaviour in the aftermath of an earthquake. *International Review of Retail, Distribution and Consumer Research*, pp. 1-13.
- Butu, A., Brumă, I., Tanasă, L., Rodino, S., Vasiliu, C., Dobos, S., & Butu, M. (2020). The Impact of COVID-19 Crisis upon the Consumer Buying Behavior of Fresh Vegetables Directly from Local Producers. Case Study: The Quarantined Area of Suceava County, Romania. *International journal of environmental research and public health* , 1-24.
- Carmen, P.-C. (2007). Perceived risk on goods and service purchases. *EsicMarket*, 129, 183-199.
- Chen, S., Juntao, Y., Weizhong, Y., Chen, W., & Till, B. (2020, MARCH 07). COVID-19 control in China during mass population movements at New Year. *COMMENT, VOLUME 395(ISSUE 10226)*, P764-766,.
- Consumer Behaviour during Crises: Preliminary Research on How Coronavirus Has Manifested. (n.d.).
- Daniel, K. A., Chung-Ying, L., Vida, I., Mohsen, S., Mark D., G., & Amir H., P. (2020). The Fear of COVID-19 Scale: Development and Initial Validation. *Int J Ment Health Addic*, 1-9.
- Jaspal, R., Lopes, B., Lopes, P., & Hubert, M. (2020). Predicting social distancing and compulsive buying behaviours in response to COVID-19 in a United Kingdom sample. *APPLIED PSYCHOLOGY*, 1-14.
- Laroche, M., Pons, F., Zgolli, N., Cervellon, M., & Kim, C. (. (2003). A model of consumer response to two retail sales promotions techniques. , 7 (). *Journal of Business Research*, 7(56).
- Larson, L., & Shin, H. (2018). Fear During Natural Disaster: Its Impact on Perceptions of Shopping Convenience and Shopping Behavior. *Services Marketing Quarterly*, 293–309. doi:<https://doi.org/10.1080/15332969.2018.1514795>
- Lins, S., & Aquino, S. D. (2020). Building a Panic Buying Scale (PBS) during COVID-19: Initial psychometric properties.
- Loxton, M., Truskett, R., Scarf, B., Sindone, L., & Baldry, G. a. (2020). Consumer Behaviour during Crises: Preliminary Research on How Coronavirus Has Manifested Consumer Panic Buying, Herd Mentality, Changing Discretionary Spending and the Role of the Media in Influencing Behaviour. *Journal of Risk and Financial management services*, 13(166), 1-21.
- Mitchell, V. (1999). Consumer perceived risk: conceptualisations and models”. *European journal of marketing*, 33, 163-195.
- Mitchell, V. (1999). Consumer perceived risk: conceptualisations and models”. *European journal of marketing*, 33, 163-195.
- Nielsen. (2020, 04 06). *COVID-19: ENTERING A NEW NORM IN CONSUMER BEHAVIOUR*. Retrieved 06 06, 2020, from <https://www.nielsen.com/>: <https://www.nielsen.com/sg/en/insights/article/2020/covid19-new-norm-consumer-behaviour/>
- Sheu, J.-B., & Kuo, H.-T. (2020). Dual speculative hoarding: A wholesaler-retailer channel behavioral phenomenon behind potential natural hazard threats., 44, 101430. *International Journal of Disaster Risk Reduction*. doi:doi:10.1016/j.ijdr.2019.101430
- Sneath, J., Lacey, R., & Kennett-Hensel, P. (2009). Coping with a natural disaster: Losses, emotions, and impulsive and compulsive buying. *Marketing Letters*, 45-60. doi:DOI: 10.1007/s11002-008-9049-y
- Taylor, S. (2019). *The Psychology of Pandemics: Preparing for the Next Global Outbreak of Infectious Disease*; . Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
- Towers, S., Afzal, S., Bernal, G., Bliss, N., Brown, S., Espinoza, B., & al. (2015). Mass media and the contagion of fear: The case of Ebola in America. *PLoS ONE* 10(6): e0129179. <https://doi.org/10.1371/journal.pone.0129179>. doi:<https://doi.org/10.1371/journal.pone.0129179>
- United Nations Department of Economic and Social Affairs. (2020, March 12). Retrieved from United Nations: <https://population.un.org/wpp/>
- Wang, E., Ning, A., Gao, Z. K., & Geng, X. (2020). Consumer food stockpiling behavior and willingness to pay for food reserves in COVID-19. *Food security*, 12, 739-747.
- Wright, O., & Blackburn, E. (2020, APRIL 28,). *insights*. Retrieved 07 11/07/2020, 2020, from <https://www.accenture.com/>: <https://www.accenture.com/us-en/insights/consumer-goods-services/coronavirus-consumer-behavior-research>
- Yuen, K. F., Xueqin, W., Fei, M., & Li., a. K. (2020). The Psychological Causes of Panic Buying Following a Health Crisis. *International Journal of Environmental Research and Public Health*, 17(3513), 1-14. doi:doi:10.3390/ijerph17103513
- Zhang, X., & Yu, X. (2020). The Impact of Perceived Risk on Consumers' Cross-Platform Buying Behavior. *Frontiers in Psychology*, 22-46.