

Impact of COVID-19 crisis on stocking and impulse buying behaviour of consumers

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Abstract

Purpose – The current study investigates how consumers are reacting to the COVID-19 pandemic. The study aims to explain consumers' stockpiling and impulse buying behaviour during the current crisis.

Design/methodology/approach – Based on the scope and focus of this study, our primary data collection tool was an online survey questionnaire that was sent to 1,000+ people and the results were computed from 417 responses received. The study employed Exploratory Factor Analysis to substantiate the construct validity of the constructs. Unidimensionality, validity and reliability of the model were assessed using confirmatory factor analysis. The effect of the COVID crisis on consumer stocking and impulse buying behaviour was investigated using structural equation modelling.

Findings – The findings show that the COVID pandemic did have a significant impact on consumer behavioural patterns indicated by the stocking and impulse buying behaviour of consumers.

Practical implications – These results have consequences for policymakers and practitioners in terms of adjusting inventory and response policies, especially in terms of efficient supply chain management processes and actively reaching out to customers to reduce their fear and anxiety levels, which contribute to such panic activity.

Originality/value – This paper adds value to the literature on consumer behaviour during COVID-19 pandemic in case of Indian consumers. The findings of the paper will help in doing a comparison of the said behaviour of consumers in other parts of the world. The paper also helps in explaining the underlying theories elucidating such behaviour of consumers.

Keywords COVID-19, Crisis, Stocking behaviour, Impulse buying behaviour, Consumer behaviour

Paper type Research paper

1. Introduction

The deadly COVID-19 pandemic has had far-reaching effects, affecting not only economic volatility but also consumer purchasing decisions all over the world (Addo *et al.*, 2020). Many governments reacted to the global outbreak of this pandemic by shutting all shopping stores and other shops, some of which were important in citizens' daily lives. China, United Kingdom and Italy were among the countries where the epidemic was quickly spreading. Many of the shops such as grocery shops, cafes and restaurants were places where a significant portion of the population of these countries depended for food. In countries like China, Italy and others, governments imposed stringent social distancing and self-quarantine controls on their people. These measurements varied widely depending on the magnitude of the pandemic in that particular region.

In order to prevent the spread of COVID-19, the Indian government also promoted strong social distancing policies and limited the access to enclosed spaces and areas likely to cause widespread infection. Government policies, the fear of unknown and uncertainties related to the pandemic and the resultant market conditions, disruption in supply chains and the panic of a crisis situation had an impact on the consumption behaviour of Indian residents during the



initial months of the full/partial lockdown (March–August, 2020). The purpose of this study is to investigate the changes in consumer behaviour following the outbreak of COVID-19 in India, specifically in relation to stocking and impulse buying behaviour of essential goods.

Consumer behaviour changes differently in situations of emergency (Teng *et al.*, 2015). To analyse consumer behaviour patterns during COVID-19, a survey was designed as a part of this study to answer the following research questions (RQ):

- RQ1. How have consumers responded to COVID-19 crisis in terms of their stocking behaviour of essential goods?
- RQ2. Has the consumer fear due to COVID-19 crisis resulted in consumers' impulse buying behaviour of essential goods?
- RQ3. What theories and factors explain the stocking and impulse buying behaviour of consumers during a crisis situation?
- RQ4. What recommendations can be given to policymakers and practitioners in light of the results of the study?

Thus, the following are the objectives of this study.

- (1) To access the impact of consumer fear due to COVID-19 crisis on stocking behaviour of consumers.
- (2) To access the impact of consumer fear due to COVID-19 crisis on impulse buying behaviour of consumers.
- (3) To explain the factors and theories explaining stocking and impulse buying behaviour of consumers during a crisis situation.
- (4) To give recommendations to policymakers and practitioners in light of the results of the study.

An impulse buying, according to Parsad (2020), occurs when consumers have an anticipatory, intense and persistent desire to buy something right away. A study by Naeem (2020, 2021) discusses how COVID-19 has led to increased purchases and led to stockpiling during the global pandemic. Our paper adds value to the literature on consumer behaviour during COVID-19 pandemic in case of Indian consumers by assessing the impact of fear of COVID-19 crisis on the stocking and impulse buying behaviour of consumers. The findings of the paper will help in doing a comparison of the said behaviour of consumers in other parts of the world. The paper also helps in explaining the underlying marketing, socio-psychological and behavioural theories elucidating this behaviour of consumers.

The rest of the paper is divided into the following sections: a theoretical background and formulation of hypotheses is given in section two, research methodology in section three and data analysis and results in section four. Section five highlights discussion, implications for policymakers and practitioners and limitations and directions for future research. Section six contains the conclusion.

2. Theoretical background and formulation of hypotheses

2.1 Theory of reasoned action (TRA)

According to Li (2020), the analysis of the TRA model would be useful to know the consumer behaviour patterns in the current volatile situation, which effectively has shaken up the global markets. The theory first floated by Fishbein and Azjen in 1975 states that the two variables to consider while studying consumer behaviour includes consumers' attitudes and subjective norms. The first variable encompasses the positive or negative feeling of people

when it comes to buying products, which possibly could be due to external market conditions. The second variable, i.e. subjective norms, encompasses judgmental factors, which effectively states that a person perceives certain things to reach their buying goals.

According to [Keane \(2020\)](#), the current state of COVID-19, which has resulted in social distancing behaviour, has the potential to modify consumer attitudes. Furthermore, proponents of subjective norms in support of TRA argue that during this crisis, numerous subjective norms (as explained by the items of the construct “consumer fear due to COVID-19 crisis” in our study- [Figure 1](#)) will influence consumers’ purchasing behaviour, impacting their stocking and impulse buying behaviour. This study seeks to specifically study the impact of these subjective norms on the impact variables in view of the ongoing pandemic.

2.2 Consumer fear due to COVID-19 crisis and consumer behaviour

Lockdown and social distancing during the COVID-19 pandemic greatly modified customer behaviour and made consumption time-bound and location-bound. People were unable to buy in supermarkets and thus, stores were forced to “come” to buyers using various online platforms ([Sheth, 2020](#)).

Since the lockdowns were imposed due to COVID-19, consumer priorities witnessed a drastic change, along with their buying behaviour. People started to focus more on survival and necessities of life. With the fear of the ongoing pandemic and concern over hygiene and infection, the demand for cleaning and hygiene products experienced a huge spike in demand, while non-essentials took a deep dive. According to [Cranfield \(2020\)](#), food, health, financial security and safety of loved ones, became the top priorities. [Roggeveen and Sethuraman \(2020\)](#) also added that as the lockdowns affected the movement of goods, and the availability of commonly used brands and products, it effectively altered brand preferences, gradually pushing consumers to demand local-made products in the process.

A study by [Tan \(2020\)](#) highlighted that the use of online platforms and technologies witnessed a phenomenal upsurge during the lockdown, as businesses, both large and small,

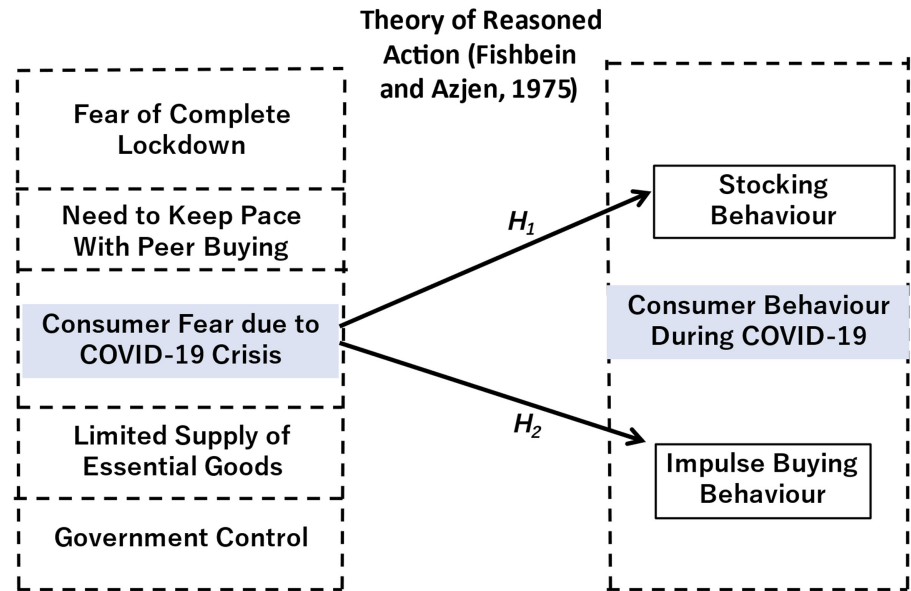


Figure 1.
Conceptual model for
the study

looked to adopt them during this crisis situation, resulting thereby in the emergence of community, market, banks, business, entertainment, education and even socializing over the Internet. Further, [Tan \(2020\)](#) and other experts believe that these new lifestyles and habits of socializing, entertainment, learning, doing business, working and DIY activities are likely to stay even after the pandemic is over.

[Yuen *et al.* \(2020\)](#) discovered four main causes that triggered panic buying in response to COVID-19: (1) perception, (2) fear of the unknown, (3) coping behaviour and (4) social psychology. When we apply these factors to our study, these factors may be redefined as.

- (1) Consumer's perception of limited supply of essential goods.
- (2) Fear of a complete lockdown being imposed.
- (3) People's coping behaviour in terms of their purchases influenced by peer buying.
- (4) Social psychology in terms of Government control exercised in the form of lockdown norms, social distancing norms, etc.

[Ahmed *et al.* \(2020\)](#) had considered the aforesaid factors, among others, in studying the impulse buying behaviour of consumers in United States during the pandemic. However, they had studied COVID-19 as a mediating variable to study the impulse buying behaviour of consumers. Our study uses the four aforesaid factors in defining our construct "consumer fear due to COVID-19 crisis" and measures the impact of it on stocking behaviour and impulse buying behaviour of consumers in India.

Our study takes cues from the theory of reasoned action (TRA) to define the construct "consumer fear due to COVID-19". The subjective norms of TRA look akin to the items of the said construct. And since subjective norms are likely to influence consumer behaviour, we assume that this construct will have an impact on stocking and impulse buying behaviour of consumers. The panic buying phenomenon during COVID-19, according to [Arafat *et al.* \(2020\)](#), is produced by a number of factors, including fear of scarcity and losing control over the environment, insecurity, social learning, anxiety exacerbation and humans' basic primitive response. This is also explained by survival psychology. Also, Maslow had anticipated that in times of crisis and uncertainty, people will prioritise access to basic needs such as food, water and other essential goods, that is, the lower level needs of the Need Hierarchy given by Maslow (also validated by [Loxton *et al.*, \(2020\)](#)). Thus, taking cues from all these theories, we develop our research model and study the stocking and impulse buying behaviour of essential commodities by consumers during COVID-19.

2.2.1 Limited supply of essential goods. Demand for basic goods during the pandemic has soared by many times, and businesses have been unable to satisfy the unexpected rise in market demand. This triggers supply chain chaos and shortages of basic commodities in supermarkets, creating more confusion among shoppers ([Kim and Su, 2020](#); [Rajan, 2020](#)). The COVID-19 pandemic affected both supply and demand of products in the United States and across the world ([Addo *et al.*, 2020](#); [Kim, 2020](#)). As a result, in this case, market anxieties have worsened, and they have tended more towards an impetus to purchasing actions ([Kim, 2020](#)).

It was seen during the COVID-19 pandemic that limits were put in place by big retailers on the quantity that could be purchased by people in order to reduce price inflation and control panic-buying behaviour of consumers especially where the "essential items" were concerned. Products like toilet paper, mint meat, eggs, milk, pasta, flour, long-term milk and liquid soap were restricted by retail giants like Woolworths and Coles in Australia ([Swain, 2020](#)). However, in some situations, these interventions backfired, as the unexpected representation of product shortages heightened public fear and contributed to more unreasonable herd behaviour.

2.2.2 Fear of complete lockdown. Out-of-stock goods, empty racks, speculation and misinformation are the results of consumers' anxiety during a crisis. These fears and risks lead to a rise in impulse purchasing behaviour by consumers with the aim of surviving in an unpredictable time. COVID-19 has had a far-reaching, alarming impact that has scared people all over the world, with nervous citizens engaging in panic buying as well as indulging in impulse buying due to partial and full lockdown conditions in their respective countries (Addo *et al.*, 2020; Zhang *et al.*, 2019). According to the results of a study by Naeem (2020, 2021), institutional and anxious appeals to stay at home during lockdown culminated in the growth of a psychological tendency and a drive to purchase products by customers due to an unpredictable situation.

2.2.3 Need to keep pace with peer buying. Behavioural economics gives an explanation of why people who are within a network are affected and influenced by the choices and behaviour of others (Easley and Kleinberg, 2010). Addo *et al.* (2020) contend that during the unprecedented COVID-19 times, people have been inclined towards an urge to buy products due to the positive as well as negative word of mouth of peers, as well as by seeing their neighbours' and peers' purchases. Zhang *et al.* (2019) and Kim and Su (2020) have also laid down that the emotional state of customers in buying products is profoundly influenced by the obvious motivation of their peers and individuals around them. People also follow purchasing trends of peers in online and offline purchases in situations like COVID-19.

2.2.4 Government control. Government control in the form of lockdown norms, social distancing norms, etc. has also led to a situation where the consumers' movement is restricted and thereby, their behaviour is also likely to be impacted. As per Stewart (2021), with the impact of social distancing norms spelled out by respective states and central governments of each country, consumers' purchasing patterns (e.g. frequency of buying, preferences, amount spent, etc.) have been the most affected. A consumer who cannot possibly go to the supermarket every day or every second day might engage in panic buying and stocking behaviour due to the fear of the commodities getting out of stock during these uncertain times. Even consumers who have made purchases online during the lockdown conditions are constantly fearing the limited stocks depleting soon. These kinds of unprecedented situations may lead the consumer to the aforesaid panic behaviour.

2.3 Stocking behaviour of consumers

A study by Naeem (2020, 2021) discusses how COVID-19 generates and strengthens uncertainty and threats, both globally and nationally, that have grown into a panic-stricken behaviour of the consumer of increased purchases even though there is no advertising scheme or price reduction in case of products bought. This research lets advertisers understand the psychology behind consumers' stockpiling behaviour during a global pandemic. Results of the study revealed that stocking behaviour of the consumers had shown an increase during the COVID-19 pandemic. Fear of products being out of stock, illness, misinformation, etc. were the possible factors that contributed to this panic-stricken behaviour.

According to Hobbs (2020), the anxiety due to the pandemic was seen in the stockpiling behaviour of consumers. As consumers respond to a crisis in a similar way due to their inherent behaviour, therefore, we lay down the following hypothesis.

- H1.* Consumer fear due to COVID-19 crisis has a significant and positive impact on stocking behaviour of consumers.

2.4 Impulse buying behaviour

An impulse buying, according to Parsad (2020), occurs when consumers have an anticipatory, intense and persistent desire to buy something right away. Similarly, Suryaningsih (2020)

and Zafar *et al.* (2019) find that spontaneous purchases include an investment made for a certain reason, and that the decision to buy something is not based on deep thought processes. External stimuli can also trigger the purchasing of impulses. However, Addo *et al.* (2020) argue that internal stimuli related to personal emotions are almost as important as external stimuli, where impulse buying behaviour is concerned. In moments of uncertainty, customer behaviour theories show how people try to achieve a sense of control by acquiring products and by indulging in panic buying (Yuen *et al.*, 2020). Impulse purchasing behaviour has increased significantly in the United States and other parts of the world as a result of COVID-19 pandemic (Kim, 2020; Wiranata and Hananto, 2020; Addo, 2020). Garrett (2020) also found that COVID-19 has had a huge effect on individuals, and that consumers in the United States engaged in impulse buying during this crisis situation.

Naem (2020, 2021) in a study on impulse buying behaviour during COVID-19 crisis concluded that susceptible groups of individuals, fear of sickness, fear of empty shelves, fear of price increases and a social tendency to purchase extra for home stay raised panic impulse purchasing behaviour among consumers. Similar results may hold true for consumers in India also. Thus, we lay the following hypothesis.

- H2. Consumer fear due to COVID-19 crisis has a significant and positive impact on impulse buying behaviour of consumers.

2.5 Conceptual model for the study

The previous literature (Li, 2020; Ahmed *et al.*, 2020) aided in understanding and incorporating the TRA (Fishbein and Azjen, 1975) with the aforesaid factors that trigger panic buying during a crisis situation, as well as in developing a model that related the consumer fear due to COVID-19 crisis to the study's impact variables – stocking behaviour and impulse buying behaviour of consumers during COVID-19. The conceptual model of the study is given in Figure 1.

3. Research methodology

3.1 Questionnaire, sampling design and sample size

A questionnaire was used to collect primary data from respondents (using email ids from an existing database of respondents of some previous studies conducted by the researchers and by circulating the questionnaire on Whatsapp groups) who were sent a Google form to get responses about consumer behaviour during COVID-19. The questionnaire was sent via emails and Whatsapp to more than 1,000 respondents due to restricted conditions of lockdown and social distancing, and responses were obtained from 417 people from all over India. Thus, judgemental and convenience sampling methods were used during this unprecedented time to get information from consumers on the impact on their consumption behaviour during the initial months of full and partial lockdown (March–August, 2020). The first part of the questionnaire contained information on the respondents' demographics. The demographic profile of the respondents is given in Table 1. The second part of the questionnaire comprised questions about the items forming the three constructs of the study – Consumer Fear due to Covid Crisis, Stocking Behaviour and Impulse Buying Behaviour of consumers. A total of 10 items (see Table 2) were listed as Likert scale questions under these factors. A seven-point Likert scale ranging from 1: “Strongly Disagree” to 7: “Strongly Agree” was employed for seeking answers to these questions. The various items of the construct “Consumer Fear due to Covid Crisis” were adapted from Ahmed *et al.* (2020). However, the various items for the constructs “Impulse Buying Behaviour of Consumers during COVID-19” and “Stocking Behaviour of Consumers during COVID-19” were defined by the authors for this study. For this reason, it was important to carry out Exploratory

Table 1.
Demographic profile of
the respondents

Demographic factors	Category	Number of respondents	Per cent
Gender	Male	128	30.7
	Female	289	69.3
Age (years)	18–35	158	37.89
	36–50	207	49.64
	Above 50	52	12.47
	Undergraduates	63	15.11
Education	Graduates	221	53.0
	Postgraduates	117	28.06
	Doctorates	16	3.84
Monthly family income	Under Rs. 50,000	11	2.64
	Rs. 50,000–Rs. 1,00,000	64	15.35
	Rs. 1,00,000–Rs. 2,00,000	212	50.84
	Rs. 2,00,000–Rs. 5,00,000	118	28.3
	Above Rs. 5,00,000	12	2.88

Table 2.
Measurement
constructs and items

Constructs	Item ID	Item
<i>Consumer fear due to COVID-19 crisis</i> (adapted from Ahmed et al., 2020)	CF1	(1) I fear that there will be a complete lockdown due to COVID-19 pandemic
	CF2	(2) In this crisis situation, I feel that if I do not follow the purchase pattern of peers, I will be in trouble
	CF3	(3) I fear that there will be a limited supply of essential goods given the conditions of lockdown
	CF4	(4) I feel that due to government control in terms of lockdown conditions, I will not be able to go to supermarket as I do in normal course
<i>Impulse buying behaviour during COVID-19</i> (defined by the authors for this study)	IBB1	(1) I have done impulse buying of essential items during the lockdown period
	IBB2	(2) I will do impulse buying of essential items given the prevalent situation
	IBB3	(3) Impulse buying of essential items is a must during crisis
<i>Stocking behaviour during COVID-19</i> (defined by the authors for this study)	SB1	(1) I have stocked extra items due to a possible COVID-19 crisis in terms of availability of essential items
	SB2	(2) I will continue to stock extra items of essential goods given the prevalent situation
	SB3	(3) It is not important to stock extra items of essential goods during crisis (reverse coded)

Factor Analysis (EFA) to determine construct validity and establish convergent and discriminant validity using Confirmatory Factor Analysis (CFA). The questionnaire was pretested by collecting responses from 24 respondents. After the respondents confirmed the clarity of items and their face validity in the pre-testing stage, data were collected from other respondents to conduct the study.

3.2 Research techniques

Sampling adequacy was determined using the Kaiser–Meyer–Olkin (KMO) test and Bartlett’s test of sphericity revealed that sufficient correlations exist in the data set to carry out EFA. The study employed EFA to substantiate the construct validity of the constructs.

Unidimensionality, validity (convergent and discriminant) and reliability of the model were assessed using CFA. The effect of consumer fear due to COVID-19 crisis on consumer stocking and impulse purchasing behaviour was investigated using structural equation modelling (SEM).

4. Data analysis and results

4.1 KMO test of sampling adequacy and Bartlett's test of sphericity

On applying the KMO test, the value was found to be 0.821, which is considered outstanding as confirmed by [Kaiser \(1974\)](#). Also, at the 5% level of significance, the results of Bartlett's test of sphericity revealed $p < 0.05$, indicating that the association between items and constructs is significant and satisfactory ([Kaiser, 1974](#)), and thus, sufficient to carry out EFA.

4.2 Exploratory factor analysis

The results of the principal component rotated matrix ([Table 3](#)) during EFA substantiate the construct validity of the constructs (this is important especially because the items of two constructs are not taken from a standardised scale). The construct "Consumer Fear due to COVID-19 Crisis" had four measurement items in our hypothesised measurement model, while Stocking Behaviour and Impulse Purchasing Behaviour during COVID-19 both had three measurement items. The results show that the factor loading for each item of these constructs was greater than 0.60 ([Table 3](#)), validating the existing items forming the constructs of our study ([Kaiser, 1974](#)).

4.3 Total variance explained

The total variance explained of the factors studied reveals a dispersion of variance among the potential factors. The percentage value of the total variance explained was 78.86%. This value is deemed excellent against the required threshold value of 50%. The results have also shown that the total of each factor's Eigenvalue is greater than 1. Thus, total variance explained and Eigenvalues both established the reliability of our data, enabling us to move forward with our analyses.

4.4 Validity analysis

CFA was carried out to determine convergent and discriminant validity of our constructs. Cronbach alpha (α) > 0.7, average variance extracted (AVE) > 0.5 and Cronbach alpha (α) > AVE are the three conditions that must be met to determine convergent validity of a

Constructs	Items	Factor loadings	Cronbach alpha (α)	AVE	Composite reliability (CR)
Consumer fear due to COVID-19 crisis	CF1	0.885	0.937	0.806	0.944
	CF2	0.910			
	CF3	0.906			
	CF4	0.919			
Impulse buying behaviour of consumers during COVID-19	IBB1	0.800	0.795	0.627	0.835
	IBB2	0.857			
	IBB3	0.870			
Stocking behaviour of consumers during COVID-19	SB1	0.945	0.780	0.689	0.890
	SB2	0.947			
	SB3	0.655			

Table 3.
Convergent validity
and reliability of
constructs

construct (Hair *et al.*, 2010). To determine a construct’s discriminant validity, two requirements must be met: AVE > MSV and AVE > ASV (Hair *et al.*, 2010). The results of zero-order and first-order CFA of the constructs during CFA revealed that the conditions of both convergent and discriminant validity were met (Tables 3 and 4).

4.5 Structural equation modelling (SEM)

SEM was used to find the impact of consumer fear due to COVID-19 crisis (independent variable) on the dependent variables – Stocking Behaviour and Impulse Buying Behaviour of consumers during COVID-19 (Figure 2). Results (Table 5) show the standardised beta coefficients indicating the relationship between consumer fear due to COVID-19 crisis and stocking behaviour and impulse buying behaviour of consumers. These standardised beta coefficients are 0.15 and 0.27 respectively, and both these values are significant at 95%

Table 4.

Discriminant validity

Constructs	AVE	ASV	MSV
Consumer fear due to COVID-19 crisis	0.808	0.074	0.086
Impulse buying behaviour of consumers during COVID-19	0.629	0.101	0.138
Stocking behaviour of consumers during COVID-19	0.743	0.112	0.138

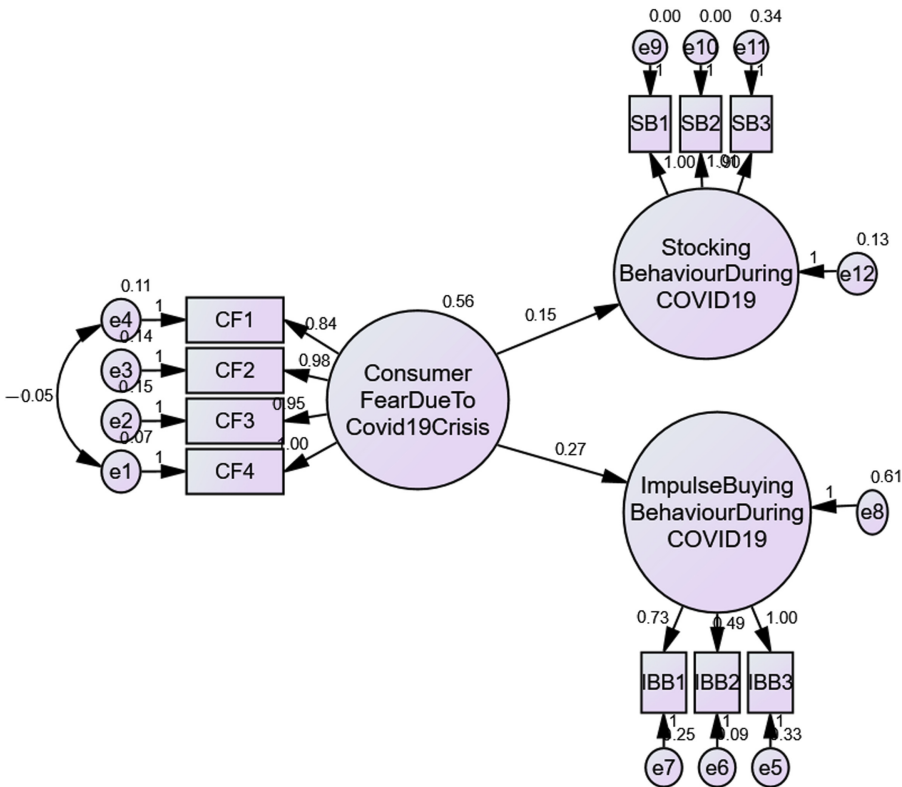


Figure 2.

Impact of consumer fear due to COVID 19 crisis on stocking and impulse buying behaviour

			Stocking and impulse buying behaviour
Model element	Impact of consumer fear due to COVID-19 crisis on stocking behaviour	Impact of consumer fear due to COVID-19 crisis on impulse buying behaviour	
Standardised beta (<i>r</i>)	0.15 (***)	0.27 (***)	1803
Chi-square (λ^2)		116.596	
Degrees of Freedom (df)		32	
<i>Model fit</i>			
CMIN/DF (λ^2 /df)		3.644	
GFI		0.949	
AGFI		0.912	
CFI		0.977	
RMSEA		0.080	
Note(s): ***significant at 95% confidence level			

Table 5.
Path analysis results

confidence level. Thus, our data support both the hypotheses of the study – H1 and H2 (results are given in Table 6). However, the values of these standardised beta lie in the range of low to moderate. Also, Table 5 presents the results of Path Analysis as well as the goodness-of-fit values for our research model, all of which lie well within the acceptable range (Hair *et al.*, 2010). These values show that our model is validated.

5. Discussion

We used the TRA to design the conceptual model for the study where consumer behaviour is impacted by various subjective norms. The study identified four antecedents of consumer behaviour during the COVID-19 crisis situation, namely, consumer's perception of limited supply of essential goods, fear of a complete lockdown being imposed, people's purchases influenced by peer buying during such times and Government control exercised in the form of lockdown norms, social distancing norms, etc. (Li, 2020; Ahmed *et al.*, 2020). We considered these factors in describing our construct "Consumer Fear due to COVID-19 Crisis".

EFA was used to establish construct validity of various constructs of the study – Consumer Fear due to COVID-19 crisis, Stocking Behaviour and Impulse Buying Behaviour of Consumers during COVID-19 Crisis. The model was tested for reliability and validity using CFA. The impact of consumer fear due to COVID-19 crisis was assessed on consumer's stocking and impulse buying behaviour during the crisis using SEM. As is clear from standardised beta coefficients, the study concludes that consumer fear due to COVID-19 crisis in India resulted in consumers piling up stocks of essential products with them. The pandemic also resulted in impulse buying behaviour by consumers. Similar behaviour was also exhibited by consumers in other parts of the world and this behaviour exhibited by consumers has overloaded fragile supply chains.

Hypothesis	Relationship	Standardised beta (<i>r</i>)	<i>p</i> value (whether significant at 95% confidence level)	Result (data support/ Do not support)
H1	CF → SB	0.15	<0.05 (***)	Data support
H2	CF → IBB	0.27	<0.05 (***)	Data support

Note(s): CFs (Consumer Fear due to COVID-19 Crisis), SB (Stocking Behaviour), IBB (Impulse Buying Behaviour)

***significant at 95% confidence level

Table 6.
Summary of results

The results of the study are also similar to the inferences made by [Loxton *et al.* \(2020\)](#) whereby, it was concluded that consumer behaviour during the COVID-19 crisis tends to be consistent with the actions seen during historical shock events. [Addo *et al.* \(2020\)](#), [Kim \(2020\)](#) and [Wiranata and Hananto \(2020\)](#) found similar consumer behaviour patterns during COVID-19 in case of United States. [Garrett \(2020\)](#) also discovered that COVID-19 had a significant impact on individuals, and that customers in the United States resorted to impulse purchases during the crisis. Studies by [Naeem \(2020, 2021\)](#) and [Hobbs \(2020\)](#) have also revealed similar results in case of stocking and impulse buying behaviour exhibited by consumers during COVID-19 crisis.

When we extend Maslow's Hierarchy of Needs to customer behaviour in context of impulse purchases, herd mentality and discretionary consumption, we find that the results are consistent with previous shocks and crises. Maslow had anticipated that in times of crisis and uncertainty, people will prioritise access to basic needs such as food, water and other essential goods. Consumers prefer utilitarian products to hedonic commodities because they provide them a sense of control ([Chen *et al.*, 2017](#)). This has proved right during COVID-19 times when high-risk aversion and economic insecurity motivated people to prioritise access to variables such as food, water and other vital products ([Loxton *et al.*, 2020](#)).

[Schneeweiss and Murtaugh \(2020\)](#) also concluded that the imminent threat of COVID-19 resulted in panic shopping by consumers that resulted in stock-outs and purchase restrictions on many food products. Survival Psychology recognises that individuals can experience behavioural changes as a result of specific occurrences, including natural disasters, health emergencies and terrorist attacks ([Forbes, 2017](#)). These behavioural changes can result in herd mentality, impulse spending, changes in discretionary purchasing habits and investment decision making ([Loxton *et al.*, 2020](#)) by consumers and an overload of fragile supply chains. Similar results are reflected in our study also. [Sim *et al.* \(2020\)](#) also explained the psychological reasons that caused consumer panic behaviour during COVID-19 pandemic. These include (1) an underlying contradiction between the desire to preserve normal routines and the uncertainty of the pandemic's duration, (2) not being able to cope with a stressful scenario, such as COVID-19-related information and (3) a reaction to the loss of control over future and social pressures. According to [Arafat *et al.* \(2020\)](#), the panic buying phenomena during COVID-19 is caused by a combination of reasons including fear of scarcity and losing control over the environment, insecurity, social learning, anxiety exacerbation and humans' basic primitive response. Survival Psychology, thus, also explains panic buying by consumers during a crisis situation. Also, as explained by the TRA ([Fishbein and Ajzen, 1975](#)), consumers' purchase behaviour (explained by the stocking behaviour and impulse buying behaviour of the consumers in our study) is significantly influenced by the subjective norms (as explained by the items of the construct 'consumer fear due to COVID-19 crisis' in our study).

However, it is pertinent to note that our results show low to moderate values of standardised beta coefficients. This means that though consumer fear due to COVID-19 crisis has significantly impacted the stocking and impulse buying behaviour of consumers, the relationship quotient is low, somewhat indicating the consumer's faith in the Government that the supply of essential items will be taken care of, through effective supply chain management systems. But the results show a significant impact due to the uncertainty, fear and anxiety that is encountered by the consumers during these unprecedented times and also, explained by the various marketing, socio-psychological and behavioural theories.

With this fear of uncertainty, consumers started to search online for products, not only the essential items but also services that could replace old ways like fitness, education, entertainment, business, work and even socializing. [Knowles *et al.* \(2020\)](#) pointed out that some of the brands like Grofers, BigBasket, Dominos and Amazon were too quick to react and came up with online solutions for their customers. Thus, big companies and brands

maintained a constant touch with their customers through various digital platforms. They were constantly communicating with their customers, rendering them basic services of delivering products in addition to the mobile apps and OTT platforms taking care of their fitness, education, entertainment, business, work and even socializing. Also small players took advantage of the opportunity to build consumer interest by delivering offerings to consumers on a local basis, with many of them being food delivery services (through mobile apps and online platforms). Thus, though the Indian market saw some panic behaviour from customers, yet brands were trying to put their best foot forward so as to come as a saviour for their customers during these hard and difficult times.

5.1 Implications for policymakers and practitioners

The study's findings may have practical implications for government leaders, policymakers, marketers and other practitioners, especially in terms of designing and applying distinct strategies to deal with unforeseen situations during the COVID-19 pandemic. [Teng et al. \(2015\)](#) contend that in emergency and crisis situations, consumers exhibit a different behaviour. Similar views were shared by [Cogato et al. \(2019\)](#). As revealed by the results of our study, consumers' stocking behaviour and impulse buying behaviour is significantly influenced by consumer fear due to COVID-19 crisis. Understanding these actions of consumer stocking and impulse buying behaviour during COVID-19 and the underlying reasons thereof, will provide important insights to businesses, governments and policymakers to design their response strategies including managing inventory by designing efficient supply chains.

For companies, we suggest that in panic situations like COVID-19, retailers and brand marketers should devise new approaches and techniques to increase their brand's market share and achieve a competitive advantage ([Ahmed et al., 2020](#)). [Lucas et al. \(2020\)](#) has emphasized upon the need for quick adaptation and adoption of technology by FMCG companies to analyse and focus on new-age tools that could even satisfy the post-COVID-19 consumers. To give consumers a sense of control and comfort, e-commerce retailers could also make use of services such as curated online shopping, where customers provide information about their requirement of products and in turn, receive personalized messages when the required product is in stock. Shoppable posts on social media using the buy-now buttons would also be helpful to the consumers. Use of artificial intelligence enabled chatbots is also recommended for meeting online queries of customers instantly. Thus, the companies are suggested to upscale their digital capabilities. During the COVID-19 crisis, several businesses have spent significant time and resources developing or enhancing their e-commerce strategy. Companies need to make an effort to ensure that e-commerce can sustain the popularity it garnered during the shutdown even when the stores reopen.

The threat posed by the pandemic is not over yet, with some nations seeing a spurge in cases again and thus, an understanding of what are the antecedents to such kind of a behaviour exhibited by consumers can be helpful in reaching out to consumers through various touchpoints (including social media) to reduce their anxiety regarding their access to the essential commodities due to government restrictions of complete lockdown and social distancing norms. Social media has already proved to be an effective media for companies to reach out to consumers during this pandemic and in assisting the consumers in making their purchases ([Moon et al., 2021](#)).

Not only this, social media has emerged as the governments' major means of communicating with citizens and disseminating information about COVID-19 around the world ([Addo et al., 2020](#)). However, social media has also been responsible for the spread of misinformation which resulted in people feeling more anxiety and fear during this crisis situation ([Limaye et al., 2020](#)). In this respect, the credibility and acceptability of social media news have been questionable during these testing times where the consumer does not know what is real and what is fake news. In reality, numerous digital platforms have played a major

role in the spread of misinformation (Zhang *et al.*, 2019), which has affected people's shopping habits, driving them towards stocking and impulse transactions. Thus, policymakers and government agencies must maintain effective and timely communication with the public in order to mitigate the detrimental effects of fake news and exaggerated media content (Billore and Anisimova, 2021).

From the viewpoint of government and policymakers, it is also pertinent to note that in light of this impulse buying and stocking behaviour of consumers, an effective management of supply chain systems during such crisis is also the need of the hour, especially when the world is still faced with the uncertainties that the virus might still bring with it. An efficient supply chain management can help in easing the fear and anxiety levels of consumers by ensuring that the shop shelves would always be stocked with essential and other commodities. Such an improvement in the overall supply chain management will also fill the existing gaps in terms of achieving distribution efficiencies and will thus, lead a country towards being a robust economy capable of meeting the demand conditions in the market.

5.2 Limitations and directions for future research

With the world still struggling to come out of the clutches of the coronavirus, governments, practitioners, marketers, businessmen and companies need to devise strategies as to how to tackle with the changes in consumer behaviour going forward. Future studies in this area should add additional dimensions for more generalised and robust results in this context, though the framework and constructs used in this study have been sufficiently validated. The COVID-19 pandemic arrived with a bang and had posed its own limitations in carrying out the research. A drawback of this report is the precision of data collection, since the survey may have been restricted to responses from people who have access to emails and Whatsapp messages, and thus may not have been able to capture the lower strata of the Indian society. As a result, the findings may not be representative of the entire Indian population. Furthermore, the results cannot be generalized to other communities around the globe. As a result, prospective scholars should perform comparable studies on a broader scale, encompassing several nations, in order to validate the aspects of stocking and impulse buying and other aspects of consumer behaviour during such crisis situation. There are also possibilities of measuring the moderating impact of demographic variables (like age, gender, education, family income, etc.) on the stocking and impulse buying behaviour of consumers.

More observational and qualitative research on the psychological elements of consumer purchase behaviour in crisis situations are needed to help in the development of future pandemic prevention methods. Future research should prioritise prospective, theory-driven analyses of predictors and demographic factors and psychographics impacting consumer purchase behaviour during the pandemic. Research is also suggested to investigate moderators such as individual consumer attributes or cultural difference. The impact of irrational stockpiling on households and communities will require more research in the future. It would also be intriguing to investigate the growing shift from physical to virtual purchases as a result of pandemic-related restrictions.

6. Conclusion

COVID-19 pandemic has caused radical shifts in consumer behaviour. As various economies struggle to recover from the shackles of the pandemic, companies, especially those producing non-essential items, too are trying to recover from the loss of business. On the other hand, there are companies which are struggling to increase production of essential commodities due to stockpiling and impulse buying behaviour of consumers. Our study brings out that consumer fear due to COVID-19 crisis led to a significant increase in their stocking behaviour and impulse buying behaviour in India. The findings have significant consequences for practitioners and

policymakers alike. We recommend that companies and marketers should upscale their digital capabilities. Companies and governments should both use social media to reach out to consumers, especially during a pandemic, to provide critical and relevant information. Governments and policymakers should also concentrate on improving supply chain management systems and filling the existing gaps in the distribution of essential commodities.

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Further reading

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