

## **Has buying behaviour changed during the COVID – 19 crisis? What are the implications for retailers?**

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**ABSTRACT:** *The purpose of this research is to try to understand the impact of the COVID-19 pandemic on consumer buying behaviour. As universal lockdown was being implemented in an effort to slow the spread of Coronavirus in many countries, it caused substantial psychological feelings of stress and anxiety which stimulated impulsive buying behaviour. This study attempts to assess the role of situational factors in influencing impulsive buying behaviour during the COVID-19 pandemic. Three variables were categorized as personal factors: fear of the COVID-19 pandemic, money availability and pre-shopping preparation; and one in-store factor: promotional incentives. The impact of all factors on the urge to buy impulsively and consequent impulsive buying behaviour were studied. Data was collected from 303 respondents and analyzed through structural equation modeling using SmartPLS 3.0. Nine hypotheses were tested and only five were found to be supported. The results indicated that all the situational factors significantly influenced the urge to buy impulsively, where the urge to buy impulsively has a direct effect on impulsive buying behaviour. However, none of the selected factors have an impact on impulsive buying behaviour. This study contributes to existing impulsive buying behaviour studies, especially in the era of COVID-19, and the findings could provide guidelines for retailers and marketing managers to improve their strategies.*

**KEY WORD:** *Consumer behaviour, impulsive buying behaviour, urge to buy impulsively, COVID-19 pandemic, fear of COVID-19*

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### **I. INTRODUCTION**

Since the global crisis of COVID-19 pandemic began spreading, it had a serious effect on countries, economies and businesses around the world. This crisis continues to have a number of consequences that impact on consumer lifestyles and behaviours (Eger et al., 2021). Previous studies argued that consumer behaviour has been changing in the rise of COVID-19, where some consumers have shifted to online shopping or used home delivery that they had not considered before the pandemic (Eger et al., 2021). This is in line with Modin and Smith (2020), who argued that crises could shape consumer behaviour and promote circumstantial adjustments to their modes of consumption.

In the era of Coronavirus, consumers became more aware of their health, fear of the disease and a feeling of uncertainty about the future. As lockdown was being implemented to slow the spread of coronavirus in many countries, it caused widespread psychological feelings of stress and anxiety that serve to stimulate impulsive buying behaviour. Impulsive buying behaviour is defined as a sudden, unplanned and complex purchasing pattern (Badgaiyan and Verma, 2015). Bellini et al. (2017) argued that impulsive buying behaviour refers to the conduct of consumers who make many seemingly impulsive purchase decisions once they enter a store. During the COVID-19 pandemic, previous studies have argued that consumers made impulsive and obsessive purchases which caused a serious supply shortage of essential products in most places (Islam et al., 2021). Thus, the crisis affected consumers' buying habits and increased the level of impulsive purchasing behaviour (Naeem, 2020). There is a need for retail managers and marketers to understand these changes in consumer buying behaviour and habits to develop their current strategies and plans in effective and productive ways. Prior researchers have argued that further investigation of the impact of impulsive buying behaviour is needed, especially during the COVID-19 pandemic (Xiao et al., 2020, Islam et al., 2021, Lehmann et al., 2019). To my own best knowledge, there is no existing empirical study conducted to understand consumer impulsive buying behaviour during the COVID-19 crisis within the Saudi Arabia context.

The purpose of this study is to examine four situational factors during the COVID-19 pandemic. The model comprises of three personal factors, namely, fear of the COVID-19 pandemic, money availability and pre-shopping preparation; and one in-store factor - namely, promotional incentives. It is envisaged that both personal and in-store factors will have an impact on the urge to buy impulsively and consumer impulsive buying behavior, as well. This study will provide valuable insights regarding how consumer behaviour is changing during different stages of the pandemic, which may help businesses and policy makers to come up with better

and more accurate strategies. This research aims to offer a contribution to the consumer behaviour literature in achieving understanding of the antecedents of impulsive buying behaviour during the COVID-19 crisis.

This paper is organized as follows. First, it summarizes prior studies and introduces the hypotheses. Second, it describes the research methodology that comprised measures and sample procedures. Then, the results are explained in two stages of analysis measurement and structural model through using SmartPLS (SEM). The last sections include a discussion of the main findings, a conclusion and details of this research's contributions and limitations.

## **II. CONCEPTUAL FRAMEWORK AND HYPOTHESIS**

### **2.1 Urge to buy impulsively**

Urge to purchase impulsively is defined as a consumer suddenly feeling the desire to buy something and this is often irresistible (Beatty and Ferrell, 1998). Previous studies found that an urge to buy impulsively has a strong influence on impulse buying behaviour (Mohan et al., 2013). According to Bellini et al. (2017), consumers who experience impulsive behaviour during their shopping are unable to resist this behaviour even when they make considerable effort to control it. In addition, Badgaiyan and Verma (2015) found that money availability and friendly store employees have a significant influence on the urge to buy impulsively which in turn affect consumers' impulsive buying behaviour. It has been suggested that the more consumers there are browsing in a shop, the greater is the collective experience of urges and consequent engagement in impulsive purchasing behaviour (Badgaiyan and Verma, 2015, Block and Morwitz, 1999). Foroughi et al. (2012) have reported a positive relationship between the urge to buy impulsively and impulsive buying behaviour. Parboteeah et al. (2009) have also found that the urge to buy impulsively was positively associated with actual impulsive buying behaviour. Thus, based on the above discussion, it has been hypothesized that:

H1: Urge to buy impulsively positively affects impulsive buying behaviour.

### **2.2 Pre-shopping preparation**

Pre-shopping preparation can be defined as planning shopping trips by collecting information about products and prices among different retailers (Bellini et al., 2017). Bellini and Aiolfi (2019) stated that effective shopping preparation is an important factor in decreasing impulsive purchases. It has been found that consumers plan their shopping lists in order to use their time and efforts wisely (Akram et al., 2016). According to Bellini et al. (2016), the higher the degree of pre-shopping preparation, the lower the tendency to demonstrate impulse buying behaviour. This means that consumers who prepare properly will increase the probability of planned purchasing only - showing a negative effect on impulse buying behaviour (Bellini et al., 2017). However, other studies found otherwise. Charlebois et al. (2018) reported that consumers use pre-shopping preparation to find on-sale goods and cheaper products, which influences their impulsive buying behaviour. It is also expected that pre-shopping preparation may decrease the urge to buy impulsively among consumers. To the best of this researcher's knowledge, no studies have been found in the existing literature to facilitate understanding of this relationship. Thus, it is being proposed that pre-shopping preparation will have a significant negative effect on the urge to buy impulsively and impulsive buying behaviour. It is therefore hypothesized that:

H2A: Pre-shopping preparation negatively affects impulsive buying behaviour.

H2B: Pre-shopping preparation negatively affects the urge to buy impulsively.

### **2.3 Money availability**

Availability of money refers to the size of budget that individuals can afford to spend on products or services (Badgaiyan and Verma, 2015). According to Chang et al. (2014), money availability plays an important role in increasing purchasing power and this positively affects impulsive buying behaviour. It has been found that availability of money is an important predictor of consumers' impulsive buying behaviour (Beatty and Ferrell, 1998, Badgaiyan and Verma, 2015). Previous studies suggest that availability of money increases the likelihood of consumers' impulsive purchasing (Kwon and Armstrong, 2002, Jain, 2021). Badgaiyan and Verma (2015) pointed out that the availability of money could engender positive emotions, which in turn, impact the urge to purchase and thereby, influence consumer impulsive buying behaviour. However, other studies have found otherwise (Pattipeilohy and Rofiaty, 2013). Pattipeilohy and Rofiaty (2013) found no significant relationship between money availability and impulsive buying behaviour. In addition, Foroughi et al. (2012) reported that money availability influenced the urge to buy impulsively, which in turn, affected consumers' impulsive buying behaviour in Malaysia. Therefore, it is expected that the greater the availability of money, the greater the opportunity to buy impulsively. Hence, it has been proposed that money availability has a positive impact on the urge to buy impulsively and consumers impulsive buying behaviour.

H3A: Money availability positively affects impulsive buying behaviour.

H3B: Money availability positively affects urge to buy impulsively.

## 2.4 Promotional incentives

According to Muruganatham and Bhakat (2013), promotional incentives influenced the urge to buy, which further led to impulse buying behaviour. Tendai and Crispen (2009) showed that coupons and promotional prices were more likely to influence consumers' impulsive buying behaviour. According to Nishanov and Ahunjonov (2016), promotional signage was found to be an important determinant of impulsive purchasing behaviour. Liao et al. (2009) have argued that sales promotion has a strong influence on triggering consumers to act impulsively. Similarly, Hosseini et al. (2020) found a positive relationship between price promotion and impulsive buying behaviour. However, Prashar et al. (2015) found that merchandising display has a stronger influence on impulsive buying behaviour than promotional incentives. Badgaiyan and Verma (2015) found that the availability of promotional incentives was one of the factors that affect consumer impulsive buying behaviour. The same study found no relationship between promotional incentives and the urge to buy impulsively. Thus, this study hypothesizes that:

H4A: Promotional incentive positively affects impulsive buying behaviour.

H4B: Promotional incentive positively affects the urge to buy impulsively.

## 2.5 Fear of Covid 19

Fear is an emotional driver of human behaviour (Lins and Aquino, 2020). Previous studies found that the fear of COVID-19 has an important role in generating impulsive buying behaviour (Donthu and Gustafsson, 2020, Naeem, 2020). Impulsive buying behaviour occurs when fear influences consumers' behaviour to buy more products than usual (Lins and Aquino, 2020). According to Islam et al. (2020), the scarcity of limited quantities of products and empty shelves increased the fear of COVID-19 and thus resulted in impulsive purchasing. During this ongoing crisis, consumers fear the complications created by the COVID-19 virus, which in turn, affect consumers' emotional intention to purchase more products by inclining them to stay home and protect their families (Naeem, 2020). However, Chang and Wang (2011) suggested that consumers avoid buying extra products during uncertain situations. As it is such a current topic, few studies have examined the influence of fear of COVID-19 on consumer behaviour. Therefore, this study proposes that fear of COVID-19 will have a positive effect on the urge to buy impulsively and impulsive buying behaviour.

H5A: Fear of Covid 19 positively affects impulsive buying behaviour.

H5B: Fear of Covid 19 positively affects the urge to buy impulsively.

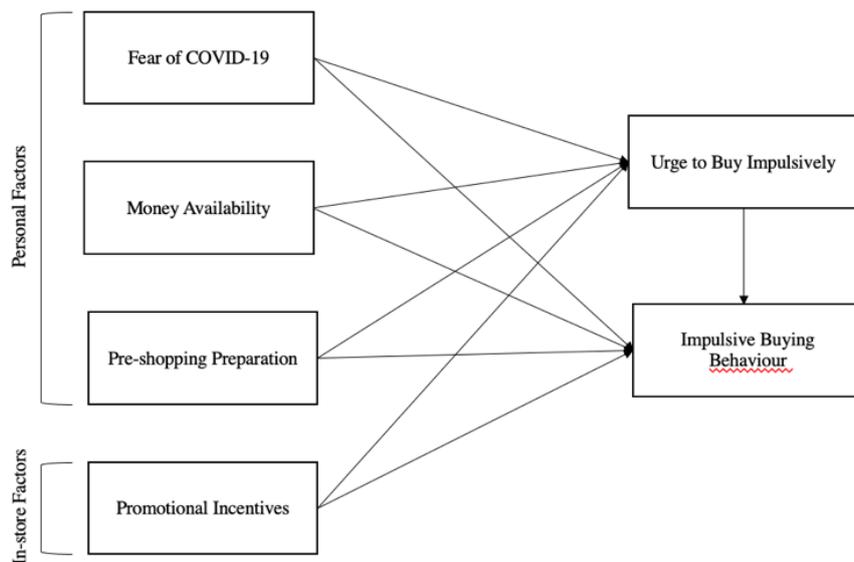


Fig.1 Conceptual Framework

### III. RESEARCH METHODOLOGY

#### 3.1 Measures

The items of each construct were adopted from previous studies using the five-point Likert scale, ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). Fear of COVID-19 was measured by four items (Ahorsu et al., 2020). Four items were used to measure urge to buy impulsively from (Bellini et al., 2017, Song et al., 2015). For measuring impulsive buying behaviour, six items were adopted from (Badgaiyan and Verma, 2015, Bellini et al., 2017, Song et al., 2015). Money availability was measured by three items adopted from (Badgaiyan and Verma, 2015). Promotional approaches were measured by three items adopted from (Badgaiyan and Verma, 2015). Two items were used to measure pre-shopping preparation adopted from (Bellini et al., 2017). In addition, the demographic variables, as well as age, gender, income and education were collected. In terms of the data analysis, this study utilized SPSS for analyzing descriptive statistics whereas structural equation modeling (SEM) was conducted by using SmartPLS-3 software to test the proposed model.

#### 3.2 Sample and procedure

To test the proposed model, an online questionnaire was circulated to collect data through using the convenience sampling method. The questionnaire was developed in English and then translated into Arabic and reviewed by three experts in the field of marketing. Data was collected from consumers in Saudi Arabia during the current COVID-19 pandemic while people are directly experiencing changes in their behaviour. A total of 303 questionnaires were collected and used for the final analysis.

### IV. RESULTS

#### 4.1 Descriptive analysis

Preliminary data analysis was conducted prior to application of Smarts-SEM in order to ensure that the dataset is ready for further analysis. As shown in Table 1, out of 303 respondents, 52.1% were female and 47.9 % were male. Almost 35% of respondents were aged between 36 and 45 years, followed by 27.1% were between 26 and 35 years old. More than 51% of respondents are well educated and hold at least a Bachelor’s degree. 30.4% of respondents have a monthly income above RS. 15,000.

**Table 1: Profile of respondents**

		Frequency	Percentage	Cumulative Percentage
Gender	Male	145	47.9	47.9
	Female	158	52.1	100.0
Age (years)	18-25	56	18.5	18.5
	26-35	82	27.1	45.5
	36-45	105	34.7	80.2
	46+	60	19.8	100.0
Education	High school	26	8.6	8.6
	Diploma	28	9.2	17.8
	Bachelor	155	51.2	69.0
	Master	65	21.5	90.4
	PhD	29	9.6	100.0
Income (monthly)	4,000 SR or less	67	22.1	22.1
	SR. 4,000-6,000	31	10.2	32.3
	SR. 6,001-8,000	22	7.3	39.6
	SR. 8,001-10,000	36	11.9	51.5
	SR. 10,001-15,000	55	18.2	69.6
	Above SR. 15,000	92	30.4	100.0

#### 4.2 Common Method Biased (CMB)

Harman's (1967) single-factor method was used to identify the presence of common method variance. If a single factor accounts for 50% or higher of the variance, it indicates threat of CMB in the data (MacKenzie and Podsakoff, 2012). Therefore, the results indicate that the first factor has explained only 23.1%, which suggests that that data is free from the concern of CMB.

#### 4.3 Assessment of Measurement Model

A partial least square (PLS-SEM) regression analysis was used through utilizing SmartPLS 3.3 software in order to test the proposed model. PLS has been found to be a useful technique for assessing complex framework and evaluating the model fit for small sample size (Sarstedt et al., 2017). SmartPLS implementation consists of two main stages: measurement model and structural model analysis (Sarstedt et al., 2017).

In terms of the measurement model, the assessment focuses on evaluating the indicator reliability, internal consistency reliability, convergent validity and discriminant validity (Sarstedt et al., 2017). As shown in Table 1, the outer loadings of the constructs were above the threshold value of 0.70, which indicates a sufficient

level of indicator reliability. However, only two items were below 0.70, but nevertheless, meet the recommended value of 0.6 suggested by (Sarstedt et al., 2017) as well as money availability (MAV3\_RS) and the urge to buy (URG4\_RS).

Table 2 shows that all constructs were validated through assessing the Cronbach's alpha (greater than 0.70 except money availability construct fall under acceptable level of 0.6), composite reliability (higher than 0.70) and average variance extracted (AVE) was exceeded the threshold value of 0.5 suggested by (Sarstedt et al., 2017). In addition, the Fornell and Larcker criterion was tested to assess discriminate validity to ensure that the constructs were free of multicollinearity issues. Table 3 displays that the square root of AVE for each latent variable were higher than other correlation between that latent variable and other latent variables. Hence, the discriminate validity was also supported. Therefore, as the assessment of reliability and convergent validity indicate satisfying results, the structural model was conducted.

**Table 2: Outer loading analysis**

	FEAR	IMP	MAV	PRM	PSP	URG
FEAR1	0.803					
FEAR2	0.826					
FEAR3	0.850					
FEAR4	0.828					
PSP1		0.867				
PSP2		0.876				
PSP3		0.812				
IMP4		0.854				
IMP5		0.800				
IMP6		0.731				
MAV1			0.751			
MAV2_RS			0.794			
MAV3_RS			0.670			
PLN1					0.945	
PLN2					0.889	
PRM1				0.877		
PRM2				0.811		
PRM3				0.882		
URG1						0.797
URG2						0.842
URG3						0.833
URG4_RS						0.659

*Note:* FEAR= Fear of COVID-19; IMP= Impulsive buying behaviour; MAV= Money availability; PSP= Pre-shopping preparation; PRM= Promotional incentives; URG= Urge to buy.

**Table 3: Measurement items and reliability and validity analysis**

Constructs	Measurement items	CR <sup>a</sup>	$\alpha^b$	AVE <sup>c</sup>
Fear of COVID -19	I am most afraid of Coronavirus-19.	0.896	0.848	0.683
	It makes me uncomfortable to think about Coronavirus-19.			
	I am afraid of losing my life because of Coronavirus-19.			
Urge to buy	When watching news and stories about Coronavirus-19 on social media, I become nervous or anxious.	0.865	0.790	0.618
	On my shopping trip, I feel a sudden urge to buy something.			
	I experienced a number of sudden urges to buy things I had not planned to purchase on this trip.			
Impulsive buying behaviour	On my shopping trip, I see a number of things I want to buy even though they are not on my shopping list.	0.927	0.906	0.680
	I experienced no strong urge to make unplanned purchases.			
	I ended up spending more money than I originally set out to spend.			
	I indulged in impulsive buying.			
	I experienced buying number of items I had not planned to			

	purchase. When I go shopping, I buy things that I had not intended buying. I am a person who makes unplanned purchases. It is fun to buy spontaneously.			
Money availability	I feel that I have enough extra money so that I can splurge a little if I find something I really like. I did not feel I could afford to make any unplanned purchases. I am on a tight budget.	0.783	0.614	0.548
Promotional incentives	If I see discount price, I tend to buy impulsively. If I see an interesting promotional offer (reduced price, sales etc.) on in-store signs, I tend to buy. I am more likely to make an unintended purchase if the product has a sale or clearance sign.	0.893	0.831	0.735
Pre-shopping preparation	I usually collect information about retailers' offers before entering the store. I usually plan purchases depending on retailers' offers.	0.914	0.816	0.841

**Table 4: Fornell and Larcker criterion results**

	FEAR	IMP	MAV	PSP	PRM	URG
FEAR	0.827					
IMP	0.203	0.825				
MAV	-0.050	0.249	0.740			
PSP	-0.040	-0.230	-0.199	0.917		
PRM	0.174	0.185	0.123	0.267	0.857	
URG	0.195	0.799	0.242	-0.251	0.193	0.786

Note: FEAR= Fear of Covid 19; IMP= Impulsive buying behaviour; MAV= Money availability; PSP= Pre-shopping preparation; PRM= Promotional incentives; URG= Urge to buy.

#### 4.4 Assessment of Structural Model

The structural model was assessed by testing paths coefficient estimates ( $\beta$ ), t-statistics, the level of  $R^2$ , effect size  $f^2$  and predictive relevance  $Q^2$  (Sarstedt et al., 2017). Before assessing the structural relationships, multicollinearity was tested by assessing the variance inflation factor (VIF) values of the constructs (Sarstedt et al., 2017). The results showed that all of the VIF values of the constructs were below the threshold value of 5.0, indicating no critical issues. In order to examine the significance of paths coefficients, a bootstrapping technique with 5,000 re-samples was conducted. As presented in Table 4, out of nine hypotheses proposed only five were supported. It is seen that the effect of the urge to buy impulsively on consumers' impulsive buying behaviour was positive and significant ( $\beta = 0.760$ ,  $t = 24.550$ ). Thus, H1 was supported. The results also showed that the effect of pre-shopping preparation on impulsive buying behaviour (H2A) was not supported ( $\beta = -0.035$ ,  $t = 0.833$ ), while the effect of pre-shopping preparation on urge to buy impulsively was negative and significant ( $\beta = -0.269$ ,  $t = 4.493$ ), indicating that H2B is supported. For H3A, it was not supported due to the effect of money availability being positive but not significant ( $\beta = 0.057$ ,  $t = 1.375$ ). However, the effect of money availability on urge to buy impulsively (H3B) was supported and significant ( $\beta = 0.170$ ,  $t = 3.075$ ). The effect of promotional incentives on impulsive buying behaviour (H4A) was not supported ( $\beta = 0.031$ ,  $t = 0.728$ ); whereas the influence of promotional incentives on the urge to buy impulsively (H4B) was effective and significant ( $\beta = 0.217$ ,  $t = 3.814$ ). For H5A, it was not supported because the effect of fear of COVID-19 was positive but insignificant ( $\beta = 0.051$ ,  $t = 1.424$ ) while the impact of fear of COVID-19 has a strong effect and significance on the urge to buy impulsively ( $\beta = 0.155$ ,  $t = 2.878$ ).

**Table 5: Structural relationships and hypotheses testing**

Hypothesis	Paths	Path coefficient	T Statistics	Decisions
H1	URG -> IMP	0.760	24.550	Supported
H2A	PSP -> IMP	-0.035	0.833	Not supported
H2B	PSP -> URG	-0.269	4.493	Supported
H3A	MAV -> IMP	0.057	1.375	Not supported
H3B	MAV -> URG	0.170	3.075	Supported
H4A	PRM -> IMP	0.031	0.728	Not supported
H4B	PRM -> URG	0.217	3.814	Supported

H5A	FEAR -> IMP	0.051	1.424	Not supported
H5B	FEAR -> URG	0.155	2.878	Supported

Note: FEAR= Fear of Covid 19; IMP= Impulsive buying behaviour; MAV= Money availability; PSP= Pre-shopping preparation; PRM= Promotional incentives; URG= Urge to buy.

Furthermore, the results showed that the value of  $R^2$  was 0.645, indicating that the five constructs together explained 64% of the variance in impulsive buying behaviour, while the  $R^2$  of the urge to buy impulsively was 0.181. This means that 18% of the variance in urge to buy impulsively was explained by the four predictors. Blindfolding technique was used to assess predictive relevance  $Q^2$  for all the endogenous latent constructs in the model. Table 5 displays that all  $Q^2$  values were above zero, indicating that predictive relevance for endogenous research constructs was established as suggested by (Sarstedt et al., 2017).

**Table 6: The results of  $R^2$  and  $Q^2$  for endogenous constructs**

Endogenous latent constructs	$R^2$	$Q^2$
IMP	0.645	0.430
URG	0.181	0.105

Note: IMP= Impulsive buying behaviour; URG= Urge to buy.

Moreover, effect size  $f^2$  of the endogenous constructs was assessed and presented in Table 6. According to Cohen (1988),  $f^2$  values of 0.02, 0.15 and 0.35, indicating small, medium and large effects. For the endogenous construct impulsive buying behaviour, the exogenous construct the urge to buy impulsively has a large effect size of 1.334, while fear of COVID-19, money availability, promotional incentives and pre-shopping preparation did not have significant effect upon size as their values of  $f^2$  are below 0.02 in all such cases. For the endogenous construct urge to buy impulsively, the constructs of fear of COVID-19, money availability, promotional incentives and pre-shopping preparation have a small-sized effect as their  $f^2$  values were between 0.02 and 0.07.

**Table 7: The results of effect size**

	FEAR	IMP	MAV	PRM	PSP	URG
FEAR		0.007				0.028
IMP						
MAV		0.008				0.032
PRM		0.002				0.049
PSP		0.003				0.076
URG		1.334				

Note: FEAR= Fear of Covid 19; IMP= Impulsive buying behaviour; MAV= Money availability; PSP= Pre-shopping preparation; PRM= Promotional incentives; URG= Urge to buy.

#### 4.5 Mediation assessment

For further analysis, this study was also testing the effect of urge to buy impulsively as a mediator between the independent variables: fear of COVID 19, money availability, promotional incentives and pre-shopping preparation and the dependent variable of impulsive buying behaviour. According to Sarstedt et al. (2017), there are three types of the mediation effect. First, partial mediation, which is established when the indirect effect and the direct effect are both significant. Second, full mediation effect is established when the indirect effect is significant but not the direct effect. Third, no mediation effect is established when the indirect effect is not significant. The results showed that the direct effect between PSP -> IMP, MAV -> IMP, PRM -> IMP and FEAR -> IMP were not supported (see Table 4). However, Table 7 shows that the indirect effects of all the paths relationships were significant. Thus, a full mediation effect is established in this study.

**Table 8: The results of moderator effect**

Paths	Path coefficient	P-Values	Mediating effects
MAV -> URG -> IMP	0.129	0.002	Full mediation
PSP -> URG -> IMP	-0.204	0.000	Full mediation
FEAR -> URG -> IMP	0.118	0.004	Full mediation
PRM -> URG -> IMP	0.165	0.000	Full mediation

*Note:* FEAR= Fear of Covid 19; IMP= Impulsive buying behaviour; MAV= Money availability; PSP= Pre-shopping preparation; PRM= Promotional incentives; URG= Urge to buy.

## V. DISCUSSION

The main objective of this research is to provide better understanding of the determinates that affect consumers' impulsive behaviour during the COVID-19 crisis. This study indicated that urge to buy impulsively has a direct influence on consumers' impulsive buying behaviour, in line with previous studies (Song et al., 2015, Badgaiyan and Verma, 2015, Bellini et al., 2017). This indicates that the higher level of urge to buy impulsively will lead to a higher level of actual impulsive buying behaviour among Saudi consumers. This study did not find support for relationships between the situational factors - namely, fear of COVID-19, money availability, promotional incentives and pre-shopping preparation - and impulsive buying behaviour. Nevertheless, in line with previous studies (Badgaiyan and Verma, 2015), these factors were found to be significant and influencing urge to buy impulsively. This clearly indicates that all factors were strongly related to the urge to buy impulsively, which means that the urge to buy impulsively could be a prior stage of actual impulsive buying behaviour.

In terms of personal factors, the study found that consumers who feel fear of COVID-19 would positively affect urge to buy impulsively. It could be related that consumers who feel scarcity of limited-quantity of products during the COVID-19 pandemic would increase the urge to buy impulsively (Islam et al., 2021). However, the fear of COVID-19 did not translate to actual impulsive buying behaviour in this study. For the money availability, the results showed that it has a positive relationship with urge to buy impulsively, in line with (Badgaiyan and Verma, 2015, Foroughi et al., 2012). This means that the increase of money availability will increase the level of urge to buy impulsively, which in turn it could affect impulsive buying behaviour. The study also found that pre-shopping preparation has a direct negative effect on urge to buy impulsively, which indicate that higher pre-shopping preparation the lower urge to buy impulsively. This result is in line with previous findings that found a negative relationship between pre-shopping planning and the urge to buy impulsively (Bellini et al., 2017). For in-store factor, promotional incentive was found to influence significantly the urge to buy impulsively, but not affecting the impulsive buying behaviour. This is contrary to the findings of Badgaiyan and Verma (2015), who found that promotional incentive was an important factor that affects impulsive buying behaviour but did not influence the urge to buy impulsively.

## VI. CONCLUSION

This study presents an understanding about the factors that could affect consumer impulsive buying behaviour in Saudi Arabia. The study shows that the fear of COVID-19, money availability, promotional incentives and pre-shopping preparation substantially influence the urge to buy impulsively, which in turn, affects impulse buying behavior. In the time of COVID-19, fear and anxiety of COVID-19 have been more likely to increase the influence of an urge to buy impulsively as consumers may have concerns about empty shelves and limited quantity of available products. It is also highlighted that money availability has a significant effect on urge to buy impulsively, which in turn, affects consumers' impulsive buying behaviour. This indicates that the higher the level of money availability, the higher the level of urge to buy impulsively. Interestingly, the study found that pre-shopping preparation was negatively influencing the urge to buy impulsively, which means the more pre-shopping preparation, the lower would be the influence of impulsive buying behaviour. Regarding the in-store factor, promotional incentive was directly influencing the urge to buy impulsively. This finding suggests that promotional incentive could capture Saudi consumers' attention and thus drive-up impulsive buying behaviour.

The findings of this study could provide new implications for marketing managers and retailers' businesses to help them understand consumer behaviour during the COVID-19 pandemic. Marketers could develop an effective marketing strategy based on the study's findings and provide opportunities for the retail sectors. This study was conducted during the COVID-19 crisis with the advent of the vaccine. However, consumers are still experiencing fear of COVID-19, especially rapid spreading of the new and apparently deadly Indian 'Delta' strain. Thus, managers of the supply chain need to build up a strategy to maintain their storage and distribution capabilities and create new plans to fulfil market demands. Moreover, the study shows that Saudi consumers were influenced significantly by in-store promotion. Thus, retailers need to build a promotional plan to stimulate impulsive buying behaviour in order to increase sales and profits. In addition, marketers need to find new ways to influence the pre-shopping preparation consumers before they enter stores in order to have a favourable effect on their buying decisions.

## VII. CONTRIBUTIONS AND LIMITATIONS

This study provides a number of contributions to the marketing literature. To the researcher's best knowledge, this study is the first academic research conducted to investigate consumers' impulsive buying behaviour in Saudi Arabia during the COVID-19 pandemic. As it is a new phenomenon, few studies have so far identified factors that could affect consumer impulsive buying behaviour during the COVID-19 pandemic. In addition, there is a dearth of studies that investigate the influence of fear of COVID-19 on consumer's purchasing behaviour. Although this research provides important and meaningful insights, it addresses some limitations as well. First, the data was collected from Saudi Arabia when COVID-19 was also affecting other countries. Consequently, future research could in theory validate the findings through considering different countries that are not represented in this research. Second, this research was quantitative and used an online survey. Future research could adopt the qualitative approach by using interview or focus group techniques to gain deeper understanding of the changes in consumer behaviour during the COVID-19 pandemic. Third, the present study examined five antecedents of impulsive buying behavior: fear of COVID-19, money availability, promotional incentives, pre-shopping preparation and urge to buy impulsively. Future studies could consider other factors that may influence consumer impulsive buying behaviour as well as age, gender, brand name effects, e-commerce and online shopping. Moreover, impulsive buying behaviour is unplanned purchasing - thus, customers may feel regret after having made a purchase. Hence, future research could explore consumer impulsive buying behaviour after the purchase to understand whether or not consumers are satisfied or dissatisfied by their impulsive behaviour.

## REFERENCES

- [1]. Ahorsu, D. K., Lin, C.-Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: development and initial validation. *International Journal of Mental Health and Addiction*, Vol. 18 No. 5, pp. 1-9.
- [2]. Akram, U., Hui, P., Khan, M. K., Hashim, M., & Rasheed, S. (2016). Impact of store atmosphere on impulse buying behaviour: Moderating effect of demographic variables. *International Journal of u-and e-Service, Science and Technology*, Vol. 9 No. 7, pp. 43-60.
- [3]. Badgaiyan, A. J., & Verma, A. (2015). Does urge to buy impulsively differ from impulsive buying behaviour? Assessing the impact of situational factors. *Journal of Retailing and Consumer Services*, Vol. 22, pp.145-15.
- [4]. Beatty, S. E., & Ferrell, M. E. (1998). Impulse buying: Modeling its precursors. *Journal of retailing*, Vol. 74 No. 2, pp.169-191.
- [5]. Bellini, S., & Aiolfi, S. (2019). Impulse buying behavior: the mobile revolution. *International Journal of Retail & Distribution Management*, Vol. 48 No. 1, pp. 1-17.
- [6]. Bellini, S., Cardinali, M. G., & Grandi, B. (2016). Does shopping preparation influence consumer buying decisions. *International Business Research*, Vol. 9 No. 10, pp. 201-211.
- [7]. Bellini, S., Cardinali, M. G., & Grandi, B. (2017). A structural equation model of impulse buying behaviour in grocery retailing. *Journal of Retailing and Consumer Services*, Vol. 36, pp. 171-164.
- [8]. Block, L. G., & Morwitz, V. G. (1999). Shopping lists as an external memory aid for grocery shopping: Influences on list writing and list fulfillment. *Journal of Consumer Psychology*, Vol. 8 No. 4, pp. 343-375.
- [9]. Chang, H., & Wang, H. W. (2011). The moderating effect of customer perceived value on online shopping behaviour. *Online Information Review*, Vol.35 No.3, pp. 333-359 .
- [10]. Chang, J., Yan, R.-N., & Eckman, M. (2014). Moderating effects of situational characteristics on impulse buying. *International Journal of Retail & Distribution Management*, Vol.42 No.4, pp. 298-314.
- [11]. Charlebois, S., Chamberlain, S., & Herian, A. (2018). Pre-shopping habits and consumer vulnerability in food retailing. *Journal of Food Research*, Vol. 7 No. 5, pp. 24-35.
- [12]. Donthu, N., & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of business research*, Vol. 117, pp. 284-289.
- [13]. Eger, L., Komárková, L., Egerová, D., & Mičík, M. (2021). The effect of COVID-19 on consumer shopping behaviour: Generational cohort perspective. *Journal of Retailing and Consumer Services*, Vol. 61, pp. 102-542.
- [14]. Foroughi, A., Buang, N. A., & Sadeghi, R. H. M. (2012). Exploring the influence of situational factors (money & time available) on impulse buying behaviour among different ethics. *International Journal of Fundamental Psychology & Social Sciences (IJFPSS)*, Vol. 2 No. 2, pp. 41-44.
- [15]. Hosseini, S. H., Zadeh, F. H., Shafiee, M. M., & Hajipour, E. (2020). The effect of price promotions on impulse buying: the mediating role of service innovation in fast moving consumer goods. *International Journal of Business Information Systems*, Vol. 33 No. 3, pp. 320-336.
- [16]. Islam, T., Pitafi, A. H.; Arya, V., Wang, Y., Akhtar, N., Mubarik, S., & Xiaobei, L. (2021). Panic buying in the COVID-19 pandemic: A multi-country examination. *Journal of Retailing and Consumer Services*, Vol. 59, pp. 1-13.
- [17]. Jain, T. (2021). Factor Affecting Impulse Buying Behavior. *International Journal of Computer Science & Management Studies*, Vol. 42 No. 1, pp. 4-6.
- [18]. Kwon, H. H., & Armstrong, K. L. (2002). Factors influencing impulse buying of sport team licensed merchandise. *Sport Marketing Quarterly*, Vol. 11 No. 3, pp. 151-163.
- [19]. Lehmann, T. A., Krug, J., & Falaster, C. D. (2019). Consumer purchase decision: factors that influence impulsive purchasing. *Revista Brasileira de Marketing*, Vol. 18 No. 4, pp. 196-219.
- [20]. Liao, S. L., Shen, Y. C., & Chu, C. H. (2009). The effects of sales promotion strategy, product appeal and consumer traits on reminder impulse buying behaviour. *International Journal of Consumer Studies*, Vol. 33 No. 3, pp. 274-284.
- [21]. Lins, S., & Aquino, S. (2020). Development and initial psychometric properties of a panic buying scale during COVID-19 pandemic. *Helijon*, Vol. 6 No. 9, pp.1-6.
- [22]. MacKenzie, S. B., & Podsakoff, P. M. (2012). Common method bias in marketing: Causes, mechanisms, and procedural remedies. *Journal of retailing*, Vol. 88 No. 4, pp. 542-555.

- [23]. Modin, Z., & Smith, Q. (2020). *Impulsive buying behavior during the COVID-19 pandemic*. Master thesis, Mid Sweden University, Sweden.
- [24]. Muruganantham, G., & Bhakat, R. S. (2013). A review of impulse buying behavior. *International Journal of Marketing Studies*, Vol. 5 No. 3, pp. 149-160.
- [25]. Naeem, M. (2020). Understanding the customer psychology of impulse buying during COVID-19 pandemic: implications for retailers. *International Journal of Retail & Distribution Management*, Vol.49 No.3, pp.337-393.
- [26]. Nishanov, B., & Ahunjonov, U. (2016). The Influence of Store Characteristics on Consumers' Impulse Buying Behaviour. *Journal of International Business Research and marketing*, Vol. 1 No. 3, pp. 20-26.
- [27]. Parboteeah, D. V., Valacich, J. S., & Wells, J. D. (2009). The influence of website characteristics on a consumer's urge to buy impulsively. *Information systems research*, Vol. 20 No. 1, pp. 60-78.
- [28]. Pattipeilohy, V. R., & Rofiaty, M. (2013). The influence of the availability of money and time, fashion involvement, hedonic consumption tendency and positive emotions towards impulse buying behavior in Ambon City (study on purchasing products fashion apparel). *International Journal of Business and Behavioral Sciences*, Vol. 3 No. 8, pp. 36-49.
- [29]. Prashar, S., Parsad, C., & Vijay, T. S. (2015). Factors prompting impulse buying behaviour-study among shoppers in India. *International Journal of Indian Culture and Business Management*, Vol. 11 No. 2, pp. 219-244.
- [30]. Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. *Handbook of market research*, Vol. 26 No. 1, pp. 1-40.
- [31]. Song, H. G., Chung, N., & Koo, C. (2015). Impulsive Buying Behavior of Restaurant Products in Social Commerce: A Role of Serendipity and Scarcity Message. In *19th Pacific Asia Conference on Information Systems, PACIS 2015*. Singapore, Singapore.
- [32]. Tendai, M., & Crispen, C. (2009). In-store shopping environment and impulse buying. *African journal of marketing management*, Vol. 1 No. 4, pp. 102-108.
- [33]. Xiao, H., Zhang, Z., & Zhang, L. (2020). A diary study of impulsive buying during the COVID-19 pandemic. *Current Psychology*, pp.1-13.

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