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COVID-19 Outbreak: Consumer Impulsive Buying Behavior towards Personal Safety and Healthcare Products

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Abstract

The global escalation of COVID-19 in 2020 has altered the consumption patterns of consumers. The research on impulsive buying during a pandemic is understudied and requires more scholarly intentions. This study addresses this gap by utilizing the reflections of well-known theoretical lenses: affect theory, the health belief model, and social exchange theory in the context of impulsive buying attitudes toward personal safety and healthcare products. The research model hypothesized the positive association between emotional, cognitive, and behavioral aspects. A total of 407 online buyers were recruited through an online cross-sectional survey. The empirical model was examined by using a method of covariance-based structural-equation modeling. Data was analyzed by using SPSS 26 and AMOS. The study findings showed a significant positive association between emotional, cognitive, and behavioral aspects. Negative and positive appeals significantly drove consumer perceptions about threats, benefits, and costs. The study results supported that cognitive aspects were associated considerably with impulsive buying behavior toward safety care products. The study findings significantly affect regulators, academics, and practitioners interested in developing regulations and strategies during pandemic situations.

Keywords: COVID-19, health belief model, affect theory, social exchange theory, impulsive buying behavior, personal safety, online buyers, health care products, Pakistan.

1. Introduction

The recent worldwide epidemic of COVID-19 has had a significant impact on the global healthcare, social, and economic systems (Hall et al., 2020; Molleví Bortoló et al., 2023; Mumtaz, 2020). The global pandemic situation of COVID-19 caused substantial changes in every matter of life, such as in social, psychological, and professional matters. The pandemic changes consumer buying patterns due to lockdown, social distancing, and working from home (Gupta et al., 2023; Lavuri et al., 2023). Moving restrictions, accessibility to public facilities, social isolation, and lockdown orders have spread consumer spending and prompted them to create new habits (Cai et al., 2023). During the lockdown, the latest procedures and regulations modified consumer purchase behaviors as consumers cannot physically visit stores and have to purchase online (Du et al., 2020; Naeem, 2021).

In today's digital era, the COVID-19 outbreak brings exciting opportunities in online shopping retail environments (Degli Esposti et al., 2021; Naeem, 2021). This pandemic significantly influenced consumer preferences, abnormal behaviors (impulsive buying), consumer shopping on digital interfaces, and technology-related behaviors (Cai et al., 2023). The research scholars and retailers are interested in responding to consumer behavior change due to COVID-19 (Das et al., 2022). Impulsive buying is one of the ways that consumers make decisions. It is the latent half of consumer behavior (Khachatryan et al., 2018). It was found that a significant proportion of consumer behavior consists of unintended and unreflective purchases, also known as impulsive buying (Bellini et al., 2017). For example, 80% of sales in luxury products, 62% in supermarkets (Ruvio & Belk, 2013), and 30–50% in retail stores (Hausman, 2000) are impulsive buying. A survey of US customers also revealed that about 75% of customers reported impulsive buying (Merzer, 2014). In emerging Asian markets like Pakistan, online retailers are also involved in marketing activities like an attractive assortment of products, promotions, and discounts to encourage customers to spend more (Bashir et al., 2013). Retailers stimulate customers for unintended and unreflective purchases, resulting in growing numbers of impulsive buying (Chan et al., 2017).

The pandemic situation of COVID-19 may effectively stimulate and alleviate impulsive buying behavior (Zhang et al., 2020), like goods that are concerned with safety (Clemens et al., 2020) and personal safety measures (Addo et al., 2020). During the pandemic, preventive measures such as individual protective and psychological measures become a basic need (Cai et al., 2023). This convergence of precarious measures into basic needs brings a significant shift in consumer demand (Eger et al., 2021). The practice of excessive buying and hoarding of face masks, handwash, sanitizers, and disposable gloves was observed early in COVID-19 (Elisa et al., 2022; Ranney et al., 2020). Therefore, it was acknowledged that examining impulsive buying behavior amidst the COVID-19 pandemic is a subject of significant concern, warranting greater scholarly attention and investigation (Tuu et al., 2022; Xiao et al., 2022).

The growing body of impulsive buying literature has witnessed vertical and horizontal surges (Badgaiyan & Verma, 2015). It was observed that the emphasis of the scholarly discussion is moved from "what" impulse buying is to "why" impulse buying is done, followed by "how." The focus of researchers shifted from a taxonomical to a trait-oriented approach (Thompson & Prendergast, 2015) and finally to cognitive aspects (Fenton-O'Creevy et al., 2018). Numerous studies in the literature have tried to develop new theoretical frameworks and examine the influence of socio-demographics, situational and marketing-driven factors on impulsive buying patterns (Chan et al., 2017). However, it was acknowledged that findings related to impulsive buying behavior during pandemic situations are unclear (Addo et al., 2020; Zhang et al., 2020). The empirical literature on impulsive buying behavior during emergencies and crises such as COVID-19 is scarce (Tuu et al., 2022; Xiao et al., 2022) and requires more intentions (Lavuri et al., 2023). This research addresses this gap by utilizing the reflections of three widely used theoretical lenses, affect theory, health belief model, and social exchange theory, to develop a comprehensive model for explaining online impulsive buying behavior towards safety care products.

Rapid growth in online sales during COVID-19 and the emergence of e-commerce as a distribution channel for the organization is essential to understanding E-commerce dynamics (Nguyen et al., 2018; Turban et al., 2017). A clear insight into impulsive buying behavior during COVID-19 may aid an organization in devising communication and marketing strategies and tailoring them accordingly for successful selling and building suitable relationships (Etminani-Ghasrodashti & Hamidi, 2020). The study's results contribute to the literature by examining the epidemic of impulsive internet shopping in developing nations like Pakistan. The study is structured as follows: the first section presents an introduction followed by a literature review. Afterward, section 3 presents the research methodology used in this research. Section 4 presents the empirical results, followed by the discussion of results, limitations and future directions in section 5.

2. Theoretical Model and Hypotheses Development

2.1 Theoretical Model

Impulse-buying behavior is examined by using diverse theoretical perspectives like Flow-theory (Wu et al., 2020), reflective–impulsive mechanism, cognitive emotion theory (Turel & Qahri-Saremi, 2017; Vonkeman et al., 2017), Stimulus-Organism-Response (S–O–R) framework (Liu et al., 2013). These models are mainly focused on the perceptual and cognitive aspects of individuals. The health belief model is one of the most extensively utilized theoretical lenses for predicting preventive behaviors such as communication during pandemics (Sheppard & Thomas, 2020), safety behavior (Yuen et al., 2020), and health risk preventative behavior (Huang et al., 2020). It was noted that emotional appeals could influence customers to act in a certain situation (Mishra et al., 2021; Siani et al., 2021). For instance, a persuasive message through negative/positive appeals may

encourage customers to consider the terrible outcomes of neglecting a specific caution and engaging in excessive buying and hoarding of precautionary measures such as safety care products (Addo et al., 2020). The social exchange of information between information seekers (consumers) and information owners (providers) may be viewed as information-seeking and purchasing behavior in online forums (Ren et al., 2019). Consumers need to put effort such as money, equipment, capabilities, energy, money, and time during searching for information, which can be regarded as a cost. The outcome of the efforts may result in knowledge, social status and quality products which can be regarded as benefits (Özel & Kozak, 2017). Therefore, the integration of affect theory, health belief model with social exchange theory may increase the predictive power of model by incorporating emotional aspects, perceived threat, perceived cost and benefits as antecedents of impulsive buying behavior towards safety care products.

2.2 Hypotheses development

2.2.1 Online impulsive buying behavior

Impulsive buying occurs both in offline and online contexts. However, the prevalence of impulsive buying in an online context is much higher than in an offline setting. Consumers often act impulsively in online decisions due to a lack of social pressure and convenience (Jeffrey & Hodge, 2007). It was found that a significant proportion of online expenditures, about 40%, is for impulsive buying (Liu et al., 2013). For this, e-commerce retailers are interested in examining online impulsive buying behavior. There is a dichotomy of views regarding the account of impulsive buying in literature (Fenton-O'Creevy et al., 2018). One stream considers impulsive buying as a harmless and positive activity. For example, it is acknowledged as a 'retail therapy' behavior that may act as a mood regulation strategy and has no downside effect (Atalay & Meloy, 2011). Impulsive buying is often considered a logical substitute for time-consuming search procedures (Hausman, 2000).

Contrary to this, the second stream highlights the adverse outcomes of impulsive buying behavior. It was identified that impulsive buying might result in unfavorable outcomes such as purchase regret, impractical purchases or irrational money spending (Ahn & Kwon, 2022; Bahrainizad & Rajabi, 2018). Impulse buying may cause several problems; it is often associated with low self-esteem, a poor value system or immaturity, financial problems, the product of disappointment, buyer dissatisfaction, and feelings of guilt and shame (Yi & Baumgartner, 2011).

Impulsive buying violates the proposition of economic man and offers a wide range of perspectives that have been put forward in clinical psychology, social, economic, and consumer buying literature (Verplanken & Sato, 2011). Researchers discovered a variety of causes behind customers' hasty purchases. Many people purchase products for psychological reasons, especially as a self-control mechanism (Vohs & Faber, 2007). According to the regulatory emphasis theory, impulsive buying can be explained by promotion-focused self-regulation, such as pursuing hedonistic or materialistic ideals. Impulsive buying may also function as prevention-focused self-regulation, such as dealing

with low self-esteem, mood repair, or alleviating negative effects (Verplanken & Sato, 2011). Others mainly buy for social reasons, like to improve their social status (Atulkar &Kesari, 2018). Several studies have investigated various antecedents of online impulsive buying behavior. Most studies have examined how environmental inputs, cognitive and emotional reactions, and ensuing behaviors interacted (Amos et al., 2014). A number of antecedents, such as customer qualities, store attributes, and situational aspects of impulsive buying (Fenton-O'Creevy et al., 2018). The COVID-19 virus epidemic prevents individuals from staying at home and making online purchases for their requirements (Alhaimer, 2021). Consumers were extensively engaged in impulsive buying of health and safety-focused products even though they already had a large quantity of them (Huang & Zhao, 2020).

2.2.2 Affect Theory

Affect theory provides an emotional approach to explaining health-related behaviors and safety (Wang et al., 2019). Human behavior is complicated and challenging to anticipate precisely (Khan et al., 2019). Cognitive aspects may provide a little explanation of buying behaviors. Emotional and important cognitive components must be included to overcome the explanatory constraints and provide a thorough account of behavioral goals (Yuen et al., 2020). A significant amount of empirical evidence supports the idea that emotions are a function of cognition (Chen, 2016; Chi & Sullivan, 2018; Reisenzein, 2017). Emotions are conceptualized by affect theory as having positive and negative effects. Positive affect is defined as highlighting or encouraging the benefits associated with health and safety care-related behavior (Yuen et al., 2020). At the same time, negative affect is manifested through intimidation of consequences attached to health and safety care-related behavior (Zhou et al., 2018). Based on the above-mentioned literature, we can anticipate that:

- H1a: Positive appeal is significantly related to perceived susceptibility.
- H1b: Positive appeal has a significant association with perceived severity.
- H1c: Positive appeal is significantly related to perceived benefits.
- H1d: Positive appeal has a significant association with executional cost.
- H1e: Positive appeal is significantly connected with psychological cost.
- H2a: Negative appeal is significantly related to perceived susceptibility.
- H2b: Negative appeal has a significant association with perceived severity.
- H2c: Negative appeal is significantly connected to perceived benefits.
- H2d: Negative appeal is significantly related to executional cost.
- H2e: Negative appeal is significantly associated with the psychological cost.

2.2.3 Health belief model (HBM)

The model of Health Belief provides theoretical grounds for explaining health and safety-related behaviors (Fathian-Dastgerdi et al., 2021). According to the Health Behavior Model (HBM), consumer perceptions of dangers, anticipated results, and self-efficacy are linked

to health- or protection-related behavior (Dodel & Mesch, 2017). These ideas are connected to the consumer cognitive process (Sulat et al., 2018). Some cognitive processes may be influenced by interpersonal and environmental aspects (Verplanken et al., 2005). The subjective assessment of potential undesirable outcomes, such as viral infection and transmission from afflicted people, is known as a perceived threat (Uğurlu et al., 2017). From the viewpoint of behavioral economics, a higher level of threat is associated with exhibiting safety behavior (Fathian-Dastgerdi et al., 2021; Yuen et al., 2020). The escalation of COVID-19 and the threat related to its widespread resulted in the excessive buying of health and safety-related products (Addo et al., 2020). Therefore, it can be conceptualized that perceived threat is associated with impulsive buying of safety care products.

- H3: Perceived susceptibility has a significant association with impulsive buying of safety care products.
- H4: Perceived severity has a significant relationship with an impulsive buying of safety care products.

The expected outcomes, also regarded as benefits, can be defined as the motivations or reinforcements for health and safety care behaviors (Panuwatwanich et al., 2017). It was found that health and safety-related behavior is determined by perceived benefits (Huang et al., 2020; Kim & Cooke, 2020; Walrave et al., 2020). Applied to COVID-19, perceptions about benefits are significantly associated with impulsive buying of safety care products.

- H5: Perceived benefits have a significant association with the impulsive buying of safety care products.

2.2.4 Social exchange theory (SET)

Online buying behavior may be regarded as conceptualized as the social exchange of information between the buyer (consumers) and the seller (providers) (Ren et al., 2019). Consumers must put money, equipment, capabilities, energy, money, and time into buying, which can be considered a cost. The efforts' outcome may result in knowledge, social status, and quality products that can be regarded as benefits (Özel & Kozak, 2017). Appling the reflections of SET in the context of COVID-19, it can be hypothesized that:

- H6: Perceived conative cost has a significant association with the impulsive buying of safety care products.
- H7: Perceived executional cost has a significant relationship with the impulsive buying of safety care products.

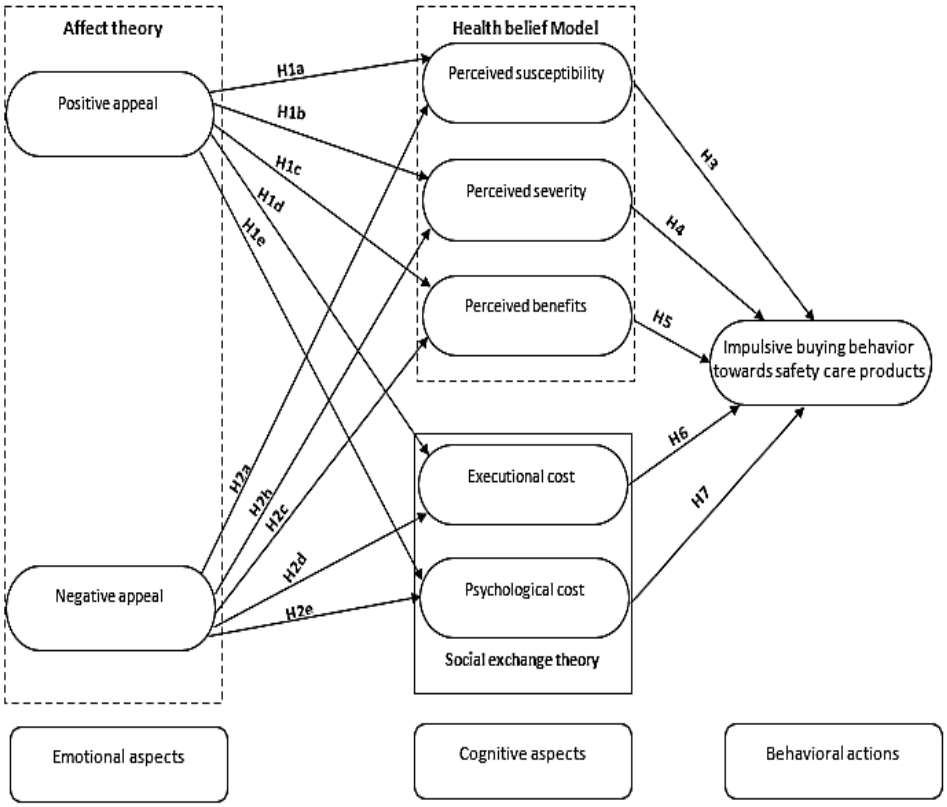

Figure 1: Research Model

3. Research Methodology

A comprehensive online survey questionnaire was used to collect data from the buyer of personal care and health-related products. Personal care and health-related products include face masks, disposable full-face shields, hand wash, sanitizers, gloves, gowns, and shoe covers. The choice of safety and healthcare items for the study's subject matter is considered acceptable to test the model as there is an actual lack of personal safety products, and healthcare product shortages were noted as a result of over-purchases during the COVID-19 early stage (Ranney et al., 2020; Telford & Bhattarai, 2020). The study of safety and personal care products offers many implications. It may impact individual and collective well-being and health through the overall burden on medical services and product supply chains (Clemens et al., 2020).

An online public survey was conducted using a purposive sampling strategy from March 2021 to June 2021. The respondents have approached various internet sites and online communities with a request to fill out the questionnaire voluntarily. The respondents were screened out by ensuring that study participants should buy health care and personal safety products after the outbreak of COVID-19. A screening question was asked to confirm that the participant bought any health care and personal safety products during the last two months. This technique is considered appropriate for collecting responses from participants engaged in this research and preventing nonserious and irrelevant responses for rigorous research outcomes (Khan et al., 2019). A total of 407 completed and valid responses were considered for the data analysis.

An overview of the sample profile presented in Table 1 revealed that the sample size comprises 56% males and 44% females. The age profile of the sample showed that 5% of the respondents were below 20 years, 28% were from the age group of 21 to 25, 31% were from age group 26 to 30, 22% were from 31 to 35 age group, and 15% were above 35 years of age. The respondents' qualification profile represents that only 4 % were matric, 14% were intermediate, 35% were bachelor and 28% were masters, and 19% were above master. The results for monthly family income demonstrated that 08% of the respondents are in the income group of below 5000, 15% were from the income group of 50001 to 100000, 20 % were from the income group of 100001 to 150000, 16 % are lying the income group from 150001 to 200000, 31% from the 200001-250000 income group and 10% are lying the income group of above 250000.

Data analysis is carried out by using covariance-based structural equation modeling (CB-SEM). Covariance-based structural equation modeling is considered a powerful tool for accessing empirical data to validate the measures, research modes, and theories (Dash & Paul, 2021). The CB-SEM is more appropriate with the research model as the objectives are confirmation and theory testing rather than theory development and prediction (Dash & Paul, 2021; Hair Jr et al., 2017). CB-SEM was also considered suitable as the collected data met the requirements of multicollinearity, normality, and sample size, as suggested by recent studies (Habib et al., 2023; Talwar et al., 2020).

Table1: Demographic Variables

Demographic	Category	Frequency (%)
Gender	Male	218 (54)
	Female	189(46)
Age	Less than 20	19(05)
	21-25	112(28)
	26-30	124(31)
	31-35	88(22)
	Above 35	63(15)
Education	Matric	18(04)
	Intermediate	55(14)
	Bachelor	142(35)
	Masters	114(28)
	Above Master	78(19)
Monthly Income	Less than 50,000	31(08)
	50,001-100,000	61(15)
	100,001-150,000	81(20)
	150,001-200,000	66(16)
	200,001-250,000	126(31)
	Above 250,000	42(10)

Note: N = 407, Age in years, Monthly income represents monthly family income in Rupees.

3.1. Measures

There were three sections of an online survey questionnaire. The first section consisted of a screening question to ensure respondents buy health care and safety products during the last two month. The second section was developed to record the respondents' profiles. The

third section was intended to record respondents' responses to study variables. Respondents were requested to record their replies on a 5-point Likert scale ranging from 1 strongly disagree to 5 strongly agree. Positive and negative affect were analyzed on 4 item scales adapted from Yuen et al. (2020). The perceived threat was operationalized as perceived susceptibility and perceived severity. The degree of susceptibility was measured using a three-item scale, while perceived severity was assessed using a six-item scale derived from Tajeri Moghadam et al. (2020). Perceived benefits were adopted from 4 items scale adapted from Tajeri Moghadam et al. (2020). The perceived cost was operationalized as cognitive cost and execution cost. The cognitive and execution costs were assessed using a four-item scale from Ren et al. (2019). Impulsive buying behavior towards safety products was analyzed with 3 items scale derived from Badgaiyan and Verma (2015).

4. Data Analysis and Results

The data set without missing values or outliers was employed to test the hypotheses. Before testing the hypotheses, data normality, common method bias, and multicollinearity were also estimated. The results related to data normality indicated that Skewness and Kurtosis values fall within the anticipated range of ±3, signifying the absence of any abnormality concerns (Mishra et al., 2019). Harman's single-factor analysis revealed that the most significant factor explained 19.45 % of the variance (see table 3), falling short of the 50% threshold, which suggests the absence of common method bias (CMB) in the dataset (Podsakoff et al., 2012). The results of VIF showed that VIF values are below the threshold value of 4 (see Table 4) in support of the absence of multicollinearity (O'Brien, 2007; Thompson et al., 2017).

Table 2: Descriptive Statistics

	Mean	Std. Deviation	Skewness	Kurtosis
PAPP	3.30	1.07	-0.49	-0.78
NAPP	3.43	1.03	-0.73	-0.31
PSUP	3.22	1.05	-0.37	-0.93
PSVR	3.46	1.09	-0.76	-0.63
PBEN	2.86	1.01	0.15	-0.85
CCOST	3.16	1.02	-0.29	-0.86
ECOST	3.22	1.05	-0.31	-0.78
IMP	3.31	1.15	-0.36	-1.01

Table 3: Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squar Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.56	19.45	19.45	8.56	19.45	19.45	5.96	13.56	13.56

Note: Extraction Method: Maximum Likelihood

Table 3: Total Variance Explained

Mode	Collinearity Statistics	
	Tolerance	VIF
PAPP	.416	2.405
NAPP	.993	1.007
PSUP	.335	2.984
PSVR	.297	3.370
PBEN	.381	2.622
CCOST	.250	3.997
ECOST	.250	3.997

Note: VIF = Variance Inflation Factor

4.1. Measurement Model

Covariance-based structural equation modeling was estimated to evaluate the accuracy and validity of measuring scales and hypothesis testing. The measurement model consisted of eight latent variables and 32 observed variables. Results of measurement model were in support of goodness-of-fit indices as CMIN /df = 2.43; GFI = .94; AGFI = .90; NFI = .93; CFI = .95; RMSEA = .042 (see table 5). The results are in support of unidimensionality (Awang, 2012), reliability, convergent validity (Hair Jr et al., 2017) and discriminant validity of measurement scales (see Table 5) (Afthanorhan, 2013; Hair Jr et al., 2017).

Table 5: Measurement Model Analysis

Constructs	Items	Outer Loading	Cronbach's Alpha	Composite Reliability*	AVE*
Positive Appeal	PAPP1	0.867	.906	.908	.711
	PAPP2	0.799			
	PAPP3	0.874			
	PAPP4	0.830			
Negative Appeal	NAPP1	0.833	.890	.893	.676
	NAPP2	0.749			
	NAPP3	0.877			
	NAPP4	0.824			
Perceived susceptibility	PSUP1	0.849	.855	.857	.666
	PSUP2	0.845			
	PSUP3	0.751			
Perceived severity	PSVR1	0.824	.921	.921	.661
	PSVR2	0.837			
	PSVR3	0.830			
	PSVR4	0.740			
	PSVR5	0.856			
	PSVR6	0.787			
Perceived benefits	PBEN1	0.707	.813	.853	.594
	PBEN2	0.817			
	PBEN3	0.836			
	PBEN4	0.714			
Cognitive costs	CCOST1	0.833	.894	.895	.680
	CCOST2	0.847			
	CCOST3	0.833			
	CCOST4	0.785			
Emotional Cost	ECOST1	0.837	.898	.898	.688
	ECOST2	0.846			
	ECOST3	0.818			
	ECOST4	0.817			
Impulsive buying	IMP1	0.891	.904	.905	.760
	IMP2	0.882			
	IMP3	0.842			

Note: $\chi 2/df = 2.43$; GFI = .94; AGFI = .90; NFI = .93; CFI = .95; RMSEA = .042

Table 6: Fornell-Larcker Criterion

	CR	AVE	MSV	MaxR (H)	PAPP	NAPP	PSUP	PSVR	PBFT	CCOST	ECOST	IMP
PAPP	0.91	0.71	0.23	0.91	**0.84**							
NAPP	0.89	0.68	0.11	0.90	0.21	**0.82**						
PSUP	0.86	0.67	0.24	0.86	0.48	0.22	**0.82**					
PSVR	0.92	0.66	0.25	0.93	0.26	0.21	0.48	**0.81**				
PBFT	0.85	0.59	0.35	0.86	0.48	0.12	0.21	0.23	**0.77**			
CCOST	0.90	0.68	0.25	0.90	0.36	0.15	0.49	0.50	0.40	**0.83**		
ECOST	0.90	0.69	0.35	0.90	0.27	0.33	0.31	0.33	0.59	0.40	**0.83**	
IMP	0.91	0.76	0.20	0.91	0.38	0.27	0.27	0.29	0.29	0.38	0.45	**0.87**

Note: Values in parentheses "( )" are the square root value of AVE of given variables

AVE= Average Variance Extracted MSV= Maximum Shared Variance

4.2. Structural Model

An estimated structural model was followed by a measurement model to test the recommended paths. The model results fit were satisfactory as CMIN /df = 2.47, $p \leq 0.00$, GFI= .92, AGFI= .89, NFI= .91, CFI= .93, RMSEA = 0.051. The results for variance explained by the structural model showed that was 46% for perceived susceptibility, 61% for perceived severity, 40% for perceived benefits, 53% for executional cost, 58 % for psychological cost, and 65% for impulsive buying behavior towards safety care products.

The results regarding path coefficients of PAPP showed that PAPP has a significant and positive impact on PSUP (β=0.390, $p<0.001$), PSVR ((β=0.471, $p<0.001$), PBFT (β=0.379, $p<0.001$), CCOST (β=0.290, $p<0.001$) and ECOST (β=0.311, $p<0.001$) which are in support of H1a, H1b, H1c, H1d and H1e. The results demonstrated that positive appeal is significantly and positively associated with perceived threat, perceived benefits, and perceived cost. These results are in line with the proposition of affect theory (Yuen et al., 2020), health belief model (Addo et al., 2020), and social exchange theory (Ren et al., 2019). Results validated the contributions of emotional aspects in shaping health and safety-related behaviors (Yuen et al., 2020). These findings revealed that appeal highlighting the benefits associated with health and safety care-related behavior encourages overcoming the perceptions of susceptibility and severity (Yuen et al., 2020). The results regarding path coefficients of NAPP showed that NAPP has significant and positive impact on PSUP (β=0.201, $p<0.001$), PSVR ((β=0.462, $p<0.001$), PBFT (β=0.316, $p<0.001$), CCOST (β=0.445, $p<0.001$) and ECOST (β=0.335, $p<0.001$) which are in support of H2a, H2b, H2c, H2d and H2e. The results favor the proposition negative appeal is significantly and positively associated with perceived threat, cost, and benefits. Research findings validated the propositions of affect theory (Yuen et al., 2020), health belief model (Addo et al., 2020), and social exchange theory (Ren et al., 2019). The findings showed

that appeal exhibited through intimidation of consequences is significantly associated with safety care-related behavior (Zhou et al., 2018). The results also demonstrated that PSUP (β=0.253, p<0.001), PSVR (β=0.182, p<0.001), PBFT (β=0.182, p<0.001), CCOST (β=0.141, p<0.001) and ECOST (β=0.393, p<0.001) have a significant and positive impact on IMP, supporting H3, H4, H5, H6 and H7. The results are consistent with the existing literature and establish that consumer perceptions about threats, cost, and benefits significantly contribute to evoking the impulsive buying behaviors model (Addo et al., 2020).

Table 7: Results for Structural Model

Proposed Relational Path	Estimate	P	Supported
PAPP→ PSUP	.390	***	Yes
PAPP→PSVR	.471	***	Yes
PAPP→ PBFT	.379	***	Yes
PAPP→ CCOST	.290	***	Yes
PAPP→ ECOST	.311	***	Yes
NAPP→ PSUP	.201	.008	Yes
NAPP→ PSVR	.462	***	Yes
NAPP→ PBFT	.316	***	Yes
NAPP→ CCOST	.445	***	Yes
NAPP→ ECOST	.335	***	Yes
PSUP→ IMP	.253	.023	Yes
PSVR→ IMP	.182	.047	Yes
PBFT→ IMP	.213	.032	Yes
CCOST→ IMP	.141	. ***	Yes
ECOST→ IMP	.393	.003	Yes

5. Discussion, Implications and Future Recommendations

This study intended to comprehensively understand by presenting empirical data on impulsive buying behavior for safety care goods. The current research covers significant conceptual and methodological gaps and uncovers young consumers' impulsive buying attitudes toward safety care products. The results showed almost an equal representation of males and females for online buying during COVID-19. Results also support the argument that the proportion of young consumers aged 21 to 35 is more representative of online impulsive buying. In line with recent research documenting the significance of the study of young consumers' impulsive buying behavior during COVID-19 (Zhao et al., 2022), young consumers are more inclined to impulsive buying behaviors (Sofi & Nika,

2017). The results related to family income demonstrated (77%) belong to a monthly income of 100,000 or more, indicating the high-income group consumer are comparatively more involved in impulsive buying during COVID-19.

The study findings are in line with the propositions of affect theory (Addo et al., 2020; Yuen et al., 2020), health belief model (Tajeri Moghadam et al., 2020; Zhao & Zhang, 2017), and social exchange theory (Ren et al., 2019). The results are in support of the propositions that emotional appeals serve as stimuli for cognitive processes which turn into behavioral actions (Crook et al., 2016; Deng & Liu, 2017; Liu & Jiao, 2018; Myrick, 2017; Swar, Hameed, & Reychav, 2017; Tao et al., 2020; Yuen et al., 2020). In line with the theoretical reflections, emotions have been manifested through the persuasion of positive and negative appeal (Lee & Hong, 2016; Minhad et al., 2017). Persuasive communications enhance perceptions of hazards, rewards, and costs by emphasizing the advantages or penalties of failing to execute a safety behavior (Wang et al., 2019). Positive appeal associated with hope, enthusiasm, confidence, and encouragement reinforces favorable perceptions towards exhibiting self-care behavior by using safety products. Similarly, the negative appeal which is associated with anger, fear, and disappointment, also encourages self-care behavior by using safety products (Robinson, 2008).

The pandemic situation of COVID 19 puts individuals at increased risk of contracting physical and mental health issues (Kar et al., 2020). During the pandemic, individuals are more concerned about personal protective and safety care products (Addo et al., 2020). The results support that perceptions about threats, benefits, and costs significantly predict impulsive buying behavior toward safety care products. Individuals believe that COVID-19 poses a major threat to humanity, which requires significant effort to overcome this situation. The perceived threat of contracting with COVID 19 motivate individuals towards excessive buying of personal protective products. The use of personal protective and safety care products reduces the propensity of contracting COVID-19. Seeing the benefits offered by safety products, individuals are more interested in purchasing personal protective products and engage in excessive buying of such products. It was also found that psychological and executional costs contribute to impulsive buying personal protective products (Ren et al., 2019).

5.1. Study Implications

The research findings offer several theoretical contributions. The current study examined the relationship between emotional appeal, perceived threat, perceived benefits, perceived cost, and impulsive buying behavior. The current study's findings add to impulsive buying behaviors during COVID-19, where perceived threat, perceived benefits, perceived cost, and impulsive buying behavior become more relevant due to safety and health concerns. First, the research model was based on the theoretical reflections of three theories: affect theory, health belief model, and social exchange theory for online impulsive buyers. Second, the current study focused on less explored impulsive buying behaviors during

crises such as COVID-19. Impulsive buying becomes more relevant during COVID-19 as consumers become more sensitive towards safety and health-related concerns during the pandemic. Third, this study used a multidimensional operationalization of perceived threat (perceived susceptibility and perceived severity) and perceived cost (executional and psychological costs). The multidimensional operationalization of constructs represents the dynamic nature and provides a better understanding and measure of the concept (Walrave et al., 2020).

The research findings offer several managerial contributions. It is evident from results that emotional appeals significantly influence consumer perceptions and consumption behaviors. Marketing managers should highlight safety and security during uncertain times, such as safety products are important for protecting personal and family health. Managers should associate the rewards and benefits associated with the purchase of health and safety products. Managers can showcase the positive attributes offering the by the safety and health care products to mitigate the possible risk and damage of pandemic situations. Managers may also influence through negative appeal such as highlighting risk, safety and health concerns and scarcity or storages.

5.2. Limitations and Future Recommendations

This study addresses key gaps in the literature and offers interesting implications for academicians and practitioners. However, there are still certain research gaps and limitations that should be considered. The study respondents were only from Pakistan. Thus, careful interpretations of results are required for generalizability to countries and cultures. Upcoming research can use respondents from other cultural groups, such as Africa and Europe, to develop a brief understanding of impulsive buying behavior during pandemic situations. The second study's conclusions are based on a cross-sectional design with self-reported measures vulnerable to methodology deficiencies. Further research may consider other systematic approaches to increase the generalizability by examining the actual behavior. Third, it is also suggested that other relevant variables such as self-efficacy and cues to actions, may be considered.

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