

Use Of E-Commerce During Covid-19 And Purchase Intention: The Mediating Role Of Social Norms

**Ikramuddin Junejo¹, Dileep Kumar², Muhammad Ali Khan³, Liaquat Ali Rahoo⁴,
Junaid Ahmed⁵**

¹SZABIST Hyderabad Campus, Hyderabad, Pakistan E-mail: ikramuddin.junejo@hyd.szabist.edu.pk

²Government Model College Mirpurkhas, Mirpurkhas, Pakistan E-mail: dilipharani@gmail.com

³Mehran University of Engineering and Technology, Jamshoro, Pakistan E-mail: muhammad.nagar@faculty.muet.edu.pk

⁴Mehran University of Engineering and Technology, Jamshoro, Pakistan E-mail: liaquatalirahoo2003@gmail.com

⁵Shaheed Benazir Bhutto University, Shaheed Benazirabad, Pakistan E-mail: junaid.abbasi@sbbusba.edu.pk

Abstract

The purpose of this study was to examine the impact of perceived control behaviour and perceived external pressure on purchase intention to use e-Commerce during COVID-19 and mediating role of social norms between perceived control behaviour and perceived external pressure and the intention to use of e-commerce during COVID-19. Using a cross-sectional design, data was collected from 200 Internet users during COVID-19 from major cities in Pakistan. Furthermore, to test the proposed hypothesis PLS-SEM technique was used. The findings of this study confirm the strong and positive impact of perceived control behaviour and perceived external pressure on purchase intention to use e-Commerce during COVID-19. In addition, social norms mediate the relationship between perceived control behaviour and perceived external pressure and purchase intention to use e-commerce during COVID-19. The results of this study extended knowledge in existing literature in terms of cultural and consumer characteristics especially in the context of developing country like Pakistan and provided practical implication for practitioners and managers.

Keywords: Perceived control behavior; Perceived external pressure; Social norms; Purchase Intention; E-commerce; COVID-19.

1. Introduction

The international trade and the global economy have changed and suffered due to the conflict-19 among world. This change affected various factors including consumer behavior and the difference shopping experience as well (Leach et al., 2021). Thus, one of measure was global lockdown and social distancing somehow limited the spread of pandemic situation but also leads to more purchase intention online marketplace (Alessa et al., 2021). In general, many consumers postpone their purchases due to unpredictable and uncertain situation throughout the world (Abid and Jie, 2021).

Moreover, the consumer market and industrial market faced lots of difficulties and decided to purchase online in order to boost the digitalization (Tran, 2021; Xayrullaevna et al., 2020). Furthermore, COVID restrictions by government also pushed individuals to purchase online at greater level rather than waiting for good time to come (Dannenberg et al., 2020). People also realized the situation of COVID-19 and changed their purchasing behavior from physical stores to online stores (Kim and Miao, 2021).

In context of developing countries, the purchase intention of goods and service towards

e-stores increased and there is fundamental increase in development of new Apps and websites (Tarhini et al., 2021). Furthermore, the covid-19 pandemic situation was ideal time to shift the people from bricks store to e-store in developing countries like Pakistan. However, developing countries face many problems in order to promote and accept online stores as compared to developed countries (Rossolov et al., 2021). Because, in the developing countries there is gap between actual experience and perception among consumer in context of e-store and direct store or physical stores. As evident, in April 2020, Walmart's sales increased by 74%, although consumer were not visit the store physically (Redman, 2020; Nassaure, 2020).

During the lockdown period, the consumer switched from traditional buying to digital setup. Multiple theoretical models were proposed for the adoption of e-commerce (Davis, 1989; Ajzen, 1991). The recent study (Alharthey, 2020) linked between various risk types such as perceived risk, price risk and perceived uncertainty risk were addressed in research model so on with online shopping in generally. In addition, more recent studies (Guzel et al., 2020; Mamuaya and Pandowo, 2020) clearly stated the intention to use of e-commerce related overall customer satisfaction in their respective countries. Eger et al. (2021) mentioned in their study that the COVID-19 situation has a different impact with respect to consumer characteristics and culture. Furthermore, existing literature related to online consumer have been conducted in various aspects such as personality characteristics (Income, age, gender and education) (39), social determinates (family, reference group, and social status) (42), Culture factors (social class and religion) (43) and marketing factors (Price, promotion, packaging and distribution), (38). Lastly, past study conducted by Rao et al. (2021), suggested the mediating variable should be incorporate in the model in the order to confirm the use of e-Commerce in context of intention.

Based on the existing literature review, the aims of this study are to add to existing literature in various ways. First, this would be a new insight from developing countries such as Pakistan, where newly established Amazon so on players have been entered during COVID-19. Second, in the present study important variables related to the COVID-19 situation are added, such as perceived control behaviour, perceived external pressure and social norms for purchase intention to use e-Commerce during COVID-19 are added in the present study. Lastly, past study conducted by Rao et al. (2021), suggested the mediating variable should be incorporate in the model in the order to confirm the use of e-Commerce in context of purchase intention. Thus, in the present study, social norm is used as a mediating variable.

The remainder of the paper is organized into various sections. Section 2 elaborates the theoretical framework and arguments for hypothesis development. Section 3, represents the methodology. Section 4 presents the results and a discussion. Lastly, Section 5 discusses the practical implications, future research and concluding remarks.

2. Literature review

2.1 Theoretical framework

The research model of present research is based upon theoretical underpinning of theory of planned behavior (Ajzen, 1991) and technology acceptance model (Davis, 1989). The theory of planned behaviour is one of most famous and widely recognised theories which explains the human behavior (Ajzen, 1991), while the technology acceptance model explains human adoption of Information Technology (IT) related products and services (Davis, 1989). The current research employing a lens of theory of planned behaviour has hypothesized independent effect of perceived behavioral control and perceived external pressure, while social norm is hypothesized as having effect mediating (Ang et al., 2021; Sukendro et al., 2020). Further, present research has

hypothesized adoption and intention to adopt e-commerce platform during the COVID-19 pandemic era by employing lens of technology acceptance model (Pal & Vanijja, 2020).

Social norm is a particular behaviour rather than replicating the rules imposed by state or competent author, and social norms helps to regulate behaviour and it depends on an individual (Kallgren et al., 2000). The social norm is also a concept similar to subjective norms as suggested by the theory of reasoned action (Ajzen and Fishbein, 1980) and an extension of the theory of planned behaviour (Ajzen, 1991). In addition, recent studies (Abou-Zeid, et al., 2013; Kim et al., 2017) emphasized that the social norm can be adopted by an individual for a specific purpose such as shopping so on in particular situation. Similar, to this study Cialdini et al., (1991) is based on a consumer's or individual's inclination for a particular reason that if, in specific situation such as COVID-19. Furthermore, the classical studies by Sherif (1936) also emphasized that the peer's response leads to specific behaviour and social support. The theory of planned behaviour (Ajzen, 1991) recommended that the social norms be a best predictor of intention or behaviour of an individual. Moreover, social identity theory (Tajfel, 1978) emphasized in his theory that the social norms essential for group-based behavior and he defined a social norm as a people behavior in specific situation). Finally, it can be argued that present research has theorized that, both perceived behavioral control and external pressure have a positive and significant impact on social norms which leads to and adoption of e-commerce platform (Alexa et al., 2021; Salem & Nor, 2020; Vijayasarathy, 2004) in the pandemic era whereas, social norms mediate the relationship in between perceived Behavioural control and external pressure and adoption of the e-commerce platform in the pandemic era (Celik, 2011).

2.2 Hypothesis development arguments

2.2.1 Perceived Behavioral Control

The perceived behavioural control is well defined as the individual expression of a capability to undertake certain actions and not to take other certain action within the social setting (Ajzen, 2002). Thus, present research argues that, perceived behavioral control refers to individual expressive capability to e-commerce platform for the purpose purchasing essential things related to livelihood of person in pandemic era of COVID-19. The idea of perceived behavioral control is enshrined in the theory of planned behavior (Ajzen, 1991) which is extension of theory of reasoned action (Ajzen and Fishbein, 1980). Perceived behavioural control is one difference between theory of planned behaviour and reasoned action. The literature clearly supports the relationship between perceived behavioral control and intention to use the e-Commerce platform (Sembada & Koay, 2019). As the world has been into the worst pandemic situation due to the COVID-19 virus, perceived behavioral control measures such as maintaining social distances, remaining and confining in the house due to governmental imposed lockdown and avoiding rush like of situation (Aschwanden et al., 2021) may have triggered people's use of e-commerce platform to purchase things to support life (Cai & Leung, 2020).

Further, it is also argued that, people all around world are into this situation of pandemic together. Therefore, to combat COVID-19 often referred to as an invisible enemy of humanity, we need to develop vaccines, which is a technical aspect of the fight (Chauhan et al., 2021) and we need to control our traditional behaviour and adopt compatible behaviour (Margraf et al., 2020). The compatible behavior is referred to as adopting behavioral measures to keep oneself and the family safe from virus attack. These behavioral measures are socially acceptable behaviours. Thus, it can also be argued that people will dispose their intention to employ e-commerce platform due to both

individual behavioral control and social norms (Gallè et al., 2020; Koch et al., 2020). Based on the above literature review, following hypothesis has been suggested.

H1a: Perceived control behavior relate to purchase intention to use e-commerce during covid-19.

H1b: Perceived control behavior relate to social norms.

2.2.2 Perceived External Pressure

The perceived external pressure refers to pressure from outside such as government, business, suppliers, distributors, and society to adopt certain things, which include behavioral measure, certain products and technology, etc. (Steensma & Erkel, 1999). The present research has operationalized perceived external pressure as pressures by the government and society to adopt the social norms of pandemic such as social distancing and lockdown and adopt e-commerce platform for buying essential things to support livelihood in the pandemic era. The present research theorizes that people have started adopting the e-commerce platform for the purpose of buying due to governmental and business pressure (Salem & Nor, 2020). The government has been arguing based upon expert and scientist advice that fight against COVID-19 virus will be successful once people change their behaviors (Clark et al., 2020), such as most importantly shopping behaviour.

Traditionally, people tend buy things from the market, shopping malls, street vendors and small shops (Emiliani et al., 2005). Many people have also argued that shopping is also leisure activity (Bäckström, 2011). The philosophy of consumerism also postulates that, shopping and consuming goods often makes human happy (Buskirk & Rothe, 1970). There is also concern of sensory aspect of judging quality of products and prices (Lawless, 1995). Therefore, people who give up their physical shopping and utilizing virtual mode of shopping using an e-commerce

platform is difficult. However, such adoption of e-commerce platform is only conceivable due to external pressure of both government and society.

H2a: Perceived external pressure relates to purchase intention to use e-commerce during covid-19.

H2b: Perceived external pressure relates to social norms.

2.2.3 The Mediating Role of Social Norms

The social norms are defined as preconception of society and its norms to be incorporated into one's behavior into it. Normally, social norms are distinguished into two different types, i.e., injunctive and descriptive social norms (Cialdini et al., 1991, 1990). The distinction of social norms into both injunctive and descriptive social norms depends on the situation into which person is going to incorporate society and its norm's preconception into his/her behaviour (Kallgren et al., 2000).

The descriptive social norm is better defined as social norms which provide appropriate information on the social conduct of a person which is acceptable to rest of society and injunctive social norm is defined as activity and behavior of person which depends expectation of rest of member of society (Cialdini et al., 1990). The injunctive social norm is related to theory subjective norms enshrined into the theory of reasoned action (Ajzen and Fishbein, 1980) and its latter extension planned behaviour (Ajzen, 1991). Based on above theory and existing literature, following hypothesis has been developed.

H3a: The social norms mediate the relationship between perceived control behavior and to purchase intention to use e-commerce during covid-19.

H3b: The social norms mediate the relationship between perceived external pressure and to

purchase intention to use e-commerce during covid-19.

3. Methodology

3.1 Procedure and Population

This study is based on an experimental research design conducted in a developing country, Pakistan. Primary data collected from people who were involved online shopping during the covid-19 pandemic. In addition, the cross-sectional study technique has been used because it helps to collect data easily from a large population. Furthermore, the adopted questionnaire was used to collect data from respondents. Total two hundred fifty questionnaires were distributed, from them only 200 questionnaires were found suitable for analysis in order to test the proposed hypothesis, 30 were incomplete, 20 were incurred for achieving research objectives these 50 were excluded from this study. Therefore, the response rate was 80% in the present study. Hair et al. (1998) suggested acceptable ratio should be 1:10, in this context present study all under the acceptance range.

3.2 Measurements

For testing the proposed hypothesis, the adopted questionnaire is used in the present study. The adopted questionnaire consisted of two sections. First, the demographic characteristics of participants including gender, age, education, and current status related information is recorded. Furthermore, section two of questionnaire consisted of variables such as independent variable (Perceived Behavioural control, perceived external pressure), mediating variable (Social Norms) and dependent variable intention to use of e-Commerce during covid-19. Current research adopted perceived behavioral control (3 items) from Wu and Chen (2005); perceived external pressure (3 items) adopted from Kurian et al. (2015); social norms (3 items) from Wu and Chen (2005) and purchase intention to use e-commerce (3 items)

from Cheng et al., (2006). The five-Likert scale questionnaire ranging from negative to positive (strongly disagree to strongly agree) is used in order to measure the above stated variables.

3.3 Statistical procedure

In the present study, partial least squares structural equation modelling (PLS-SEM) is applied in order to test the proposed hypothesis by using Smart-PLS software (version 3.3.2) (Ringle et al., 2015). According to Hair et al. (2017), this technique is acceptable when research scholars' objectives to test the proposed research model using existing theories and mediation effect are tested as in the present study. We analyzed the gathered data and report as recent guidelines provided by (Ringle et al., 2020; Hair et al, 2017).

4. Results

The current research has employed partial least square- structural equation modelling (PLS-SEM) data analysis techniques with the help of SmartPLS 3.20 package (Hair et al., 2019). The results of data analysis are presented in the following section.

3.1 Demographic Characteristics

The Table 1 illustrate the demographics characteristics of sample of present study. The results show that, majority of are female (51.5%) as compare to male respondents who are (42.5%). Furthermore, as for age is concern, majority of the respondents have reported an age group of 20 to 24 years (43.5%), followed by 10-16 (23%) and 24-28 (21.5%). In education, most of our respondent have reported having a bachelor' degree of 14 years (38.5%) followed by undergraduate degree (28%) and a Master's (20.5%). Finally, the for as current status as source of income or occupation is concerned, most of our respondents have reported having the occupation of being student (62%) followed by employed (28%) and those who own a business (10%). The results clearly show a consistency in between age, education, and occupation.

Table 1: Demographics of Data

Construct	Category	Frequency	Percentage
Gender	Male	97	42.5%
	Female	103	51.5%
Age	10-16	46	23%
	20-24	87	43.5%
	24-28	43	21.5%
	Above 28	24	12%
Education	Master	41	20.5%
	Bachelor	77	38.5%
	Undergraduate	56	28%
	Intermediate	26	13%
Current status	Student	124	62%
	Employed	56	28%
	Own business	20	10%

4.2 Common Method Bias

The common method bias (CMB) refers to the bias that arises from data collection instruments. The present research is studying the various variables but it is using the common method to collect the data which literature argues can be biased (Harman, 1967). Therefore, present research has employed

Harman's single factors test to detect CMB. According to literature, CMB can exist once variance of single factor exceeds 50% (Podsakoff et al., 2003). The results of Harman's single factors test suggest that, present research does not possess CMB as result of single factors stands at 49.77% as shown in the table 2.

Table 2: Common Method Bias

Total Variance Explained							
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	9.941	52.319	52.319	9.457	49.774	49.774	
2	1.816	9.556	61.875				
3	1.378	7.251	69.126				
Extraction Method: Principal Axis Factoring.							

4.3 Construct validity and Reliability

The instrument employed to collect the data for present research was questionnaire. The items on each measures and variable of study was adopted from the past studies. Thus it is suggested that, reliability and validity of each measure should be established (Ringle et al., 2015). The reliability refers to assumption of

internal consistency of items with variable (Henson, 2001) and validity refers to assumption that, each items are measuring phenomena of their own interests (McCrae et al., 2011). Reliability is tested through indices of Cronbach alpha and composite reliability indices, while validity is measured through average variance extracted (AVE) (Afthanorhan et al., 2020). According to the

literature of PLS-SEM, the construction achieving the Cronbach alpha and the composite reliability value of 0.70 and the AVE value of 0.50 is a fulfilment of the assumption of reliability and validity (Hair et al., 2011; Hair et al., 2019). The results of reliability and validity for current research are presented in table 3 which shows that, reliability, and validity for constructs of present research are achieved.

The current research has assessed the reliability of each single item referred as indicator reliability. The factor loading often referred to as outer loading in PLS-SEM literature have been used to assess indicator reliability. The literature further suggests that an item achieving factor loading of 0.70 will be considered as reliable research. The results of indicator reliability for current research are present in the table 3. The results show us, each and every item is reliable to be considered for the final analysis (Hair et al., 2014; Kock, 2014).

Table 3: Construct Validity and Reliability

	Item	Loading	VIF	CA	CR	AVE
Purchase intention to use e-commerce	PINT1	0.928	2.350	0.919	0.949	0.861
	PINT2	0.933	2.596			
	PINT3	0.922	2.095			
Perceived behavioral control	PBC1	0.901	2.427	0.847	0.908	0.766
	PBC2	0.887	2.311			
	PBC3	0.837	1.743			
Perceived external pressure	PEP1	0.857	2.136	0.883	0.927	0.810
	PEP2	0.932	2.159			
	PEP3	0.909	2.674			
Social norms	SN1	0.889	2.167	0.855	0.912	0.775
	SN2	0.873	2.122			
	SN3	0.878	2.070			

4.4 Discriminant Validity

The discriminant validity refers to the assumption that, every construct of study and in data collection instrument is different from other respective constructs and each construct is measuring the different and unique phenomena in the study (Zaiğ and Berteau, 2011). SmartPLS 3.20 helps us to assess discriminant validity

through the widely famous Fornell-Locker criterion (Ab Hamid et al., 2017). The literature suggests that, the value of Fornell-Locker for every construct should be higher than other respective constructs. The results of discriminant validity for current research are presented in Table 4 which shows that, current research has satisfied the assumption of discriminant validity.

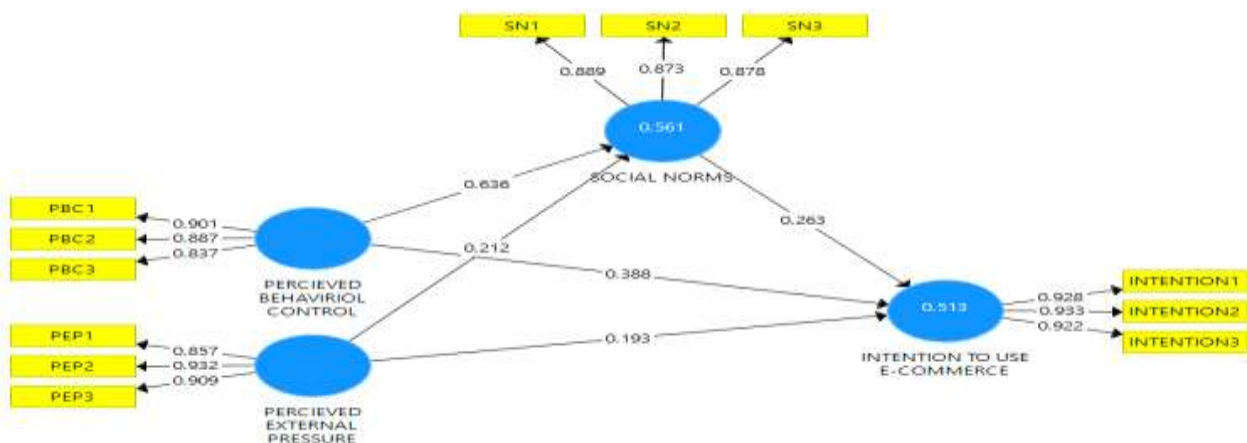
Table 4: Discriminant Validity

	Purchase intention to use e-commerce	Perceived behavioral control	Perceived external pressure	Social norms
Purchase intention to use e-commerce	0.928			
Perceived behavioral control	0.657	0.875		
Perceived external pressure	0.477	0.413	0.900	
Social norms	0.635	0.724	0.475	0.880

4.5 Model Fitness

The model fitness refers to the goodness of the fit of research model. SmartPLS 3.20 helps to assess the goodness of the fit of research model through square root mean residual (SRMR) which is referred as absolute measure of fit

(Henseler et al., 2014). The literature of PLS-SEM on model fitness shows us that, for if research model as achieved assumption goodness of fit, SRMR value should be lower or below than 0.08. The results of model fitness for present research are shown in figure 1.

**Figure:** Model Fitness

4.6 Structural Model

The structural model refers to assessment of hypothesis testing presented in the table 5. The

results show that all of hypothesis developed for the present research have been accepted based on the significance value ($P < 0.05$).

Table 5: Path Analysis

	Beta Value	Standard Deviation	T Statistics	P Values
--	------------	--------------------	--------------	----------

Perceived behavioral control -> purchase intention to use e-commerce	0.386	0.100	3.851	0.000
Perceived behavioral control -> social norms	0.636	0.066	9.670	0.000
Perceived external pressure -> purchase intention to use e-commerce	0.192	0.083	2.305	0.021
Perceived external pressure -> social norms	0.212	0.065	3.256	0.001
Social norms -> purchase intention to use e-commerce	0.265	0.101	2.617	0.009

4.7 Mediation analysis

The structural model of PLS-SEM helps to assess the mediation analysis with the help of indirect effect. The result of Mediation analysis is shown in the table 6. The result shows that, mediating effect of social norm in between Perceived behavioral control and intention to use e-commerce is significant based upon p

value of 0.007 while mediating effect of social norm in between Perceived external pressure and intention to use e-commerce is insignificant based upon P value of 0.063. However, both the total effect and the direct effect of perceived external pressure on social norm and intention to use e-commerce are significant. The results of structural equation modelling (path analysis) for present research are shown in Figure 2.

Table 6: Mediation Analysis

	Beta	Standard Deviation	T Statistics	P Values
Perceived behavioral control -> social norms -> purchase intention to use e-commerce	0.168	0.062	2.696	0.007
Perceived external pressure -> social norms -> purchase intention to use e-commerce	0.056	0.030	1.858	0.063
Total Effect				
Perceived External Pressure -> purchase intention to use e-commerce	0.249	0.072	3.430	0.001

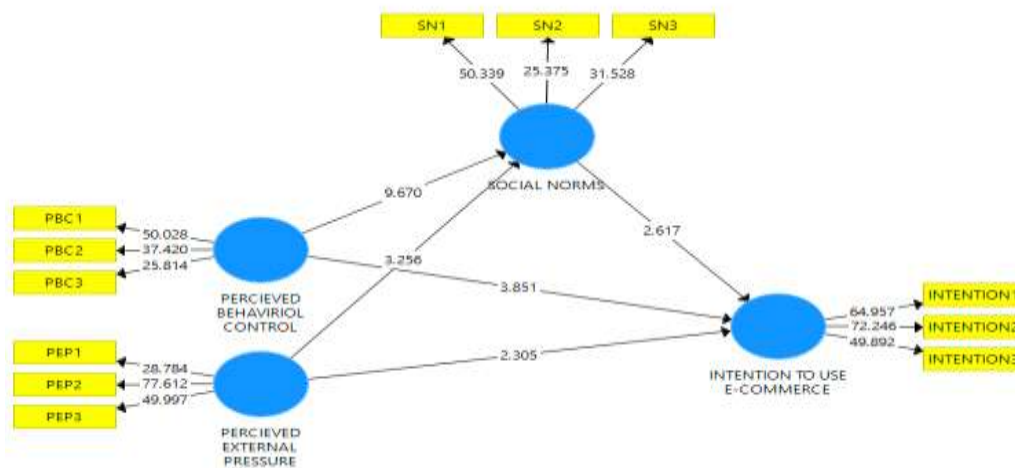


Figure 2: Structural Equation Modeling (Path Analysis)

4.6 Discussion

The ongoing pandemic in the form of the new corona virus (COVID-19) has changed the world in many ways. The work setting, education, public health, economy, and, more importantly, behaviour of citizens has seen significant changes. One of key activities which is significantly affected by the pandemic is purchasing and consuming. The lockdowns and people fear of getting caught by virus made them to confine in their place and observe social distancing. The business also opted quickly by going digitalized and offered customers more convenience to buy good while observing social distancing. The purpose of present research is to study consumer intention of using e-commerce platforms for in the pandemic era. The current research has theorized that, perceived behavioral control and external pressure will have direct effect upon social norms and intention to use e-commerce. Further, it has also been theorized that, social norms will mediate relationship in between perceived behavioral control and external pressure and intention to use e-commerce platforms in pandemic era.

The present research theorized that, social norms is impacted by both perceived behavioral control and perceived external pressure of individual. The social norm is defined here as beliefs which are attested by

important individual or group of society (Ajzen, 1991). The social norm in the present research context revolves around the situation with references to the COVID-19 related pandemic. The beliefs include its existence, preventive measure, and solution to end pandemic. The present research theorized that both perceived behavioral control and perceived external pressure causally yield to the social norms. The results of structural model have confirmed such hypothesis which states that, perceived behavioral control (Ajzen, 1991) and control and external pressure has positive impact upon social norms.

The perceived behavioral control is defined here as individual perception of inability and ability to perform certain action (Ajzen, 2002). The perceived behavioral control's relevance in pandemic situation is arises from observation of idea of social distancing. The social distancing especially in lockdown the situation confines people to their places. People cannot move within the city for purposes such as work, education, shopping, etc. The present research has found that, perceived behavioral control impacts positively to social norms ($\beta=0.636$) related COVID-19 related situation. The people inability to move around the city is affirming wide ranging beliefs reground to COVID-19 pandemic such as beliefs regarding to its existence, prevention, and its end. Similar, it can also be argued that,

people will dispose their intention to employ e-commerce platform due to both individual behavioral control and social norms (Gallè et al., 2020; Koch et al., 2020). In addition, the present research attempted to the study empirically role of perceived external pressure. The study theorized a positive impact of perceived external pressure on the social norms. The results of the data show that such hypothesis have been accepted ($\beta=0.212$). The social norms related to pandemic have been improved by perceived usefulness of technologies being used people in the time of pandemic. The digital and internet technologies are now primary source of information for people across the world. These technologies provide first-hand information on pandemic situation. The information becomes instrumental in observing the social norms related to pandemic.

The e-commerce platform is digital software enabled market where both seller and consumer meet virtually and undertake their role in value chain. Researchers and policy makers have been arguing that the use of e-commerce platform has been accelerated in the era of pandemic. E-Commerce platforms have become key source of livelihood for families around the world especially in the metropolis. Therefore, present research has hypothesized that, use of e-commerce platform has accelerated in the pandemic era due to three important factors i.e., Social Norms, Perceived behavioral control and social norms. The results of structural model have confirmed impact of Social Norms, perceived behavioral control and social norms on intention to use e-commerce platform.

The perceived inability of people around the world to carry out normal activities specially to shop in markets, has led citizens to start using e-commerce platform for such activities. The results show strong support for assertion that, perceived behavioral control have over intention of using e-commerce platforms ($\beta=386$). Findings of present studies

are aligned with past studies. The literature clearly supports the relationship in between perceived behavioral control and intention to use e-commerce platform (Sembada & Koay, 2019). The lockdown situation among country may have triggered people's use of e-commerce platform for purchasing things to support life (Cai & Leung, 2020). we need control our traditional and adopt compatible behavior (Margraf et al., 2020). Furthermore, current research has theorized that, perceived external pressure different technologies have also spurred growth using e-commerce platform by consumers. The data analysis results show strong support for such hypothesis ($\beta=0.192$). It can be concluded that technologies such as intent, digital, and smartphones, mobile application have enhanced user experience with newest innovation. This is the reason that people have good shopping experience on the digital platform. Thus, when the pandemic situation struck, people quickly shifted toward using e-commerce platforms. Finally, present research has also hypothesized that, social norms related to the pandemic such as observing social distancing and confining themselves into their homes have also accelerated the use of e-commerce platforms. The results of the data analysis support these premises in hypothesis ($\beta=0.265$). Social norms related to the pandemic have impacted the use of e-commerce platforms. The present research theorizes that, people have started adopting the e-commerce platform for the purpose of buying due to governmental and business pressure (Salem & Nor, 2020). The government has been arguing based on expert and scientist advice that fight against COVID-19 virus will be successful once people change their behaviors (Clark et al., 2020).

The mediation analysis presents in this research the mediating effect of social norms in between independent variable (perceived behavioral control and perceived usefulness) and dependent variables (intention to use e-Commerce). The premise of such hypothesis is that, both perceived behavioral control and

perceived usefulness yields to social norms related to pandemic situation and which leads further to people increased intention to use e-commerce platforms. The distinction of social norms into both injunctive and descriptive social norms depends on the situation into which person is going to incorporate society and its norm's preconception into his/her behaviour (Kallgren et al., 2000). The data analysis from structural models suggests that, perceived behavioral control impacts upon the social norms which leads to development of intention to use e-commerce platforms ($p=0.007$ and $\beta=0.168$). The hypothesis which premised that perceived external pressure impacts social norms leading to higher purchase intention to use e-commerce platform, has been accepted ($p=0.063$). However, the direct effect of perceived usefulness and on social norms and purchase intention to use e-commerce has been accepted. Therefore, partial mediation has been revealed for both proposed hypotheses.

5. Research Implications, Future research direction and Concluding Remarks

5.1 Managerial Implications

In this study it is emphasized on recent response of consumer towards during covid-19 and shopping experience would be different than traditional physical stores buying. Therefore, e-Commerce related businesses should gain the trust and addresses the problem of online setup. In addition, this approach will help e-commerce-related businesses to grow their businesses during and after Covid-19 especially developing countries like Pakistan. Moreover, awareness among consumer during covid-19 for use of e-commerce can be done via various social media tools such as Twitter, YouTube, Facebook, and LinkedIn so on. This is how companies can build confidence among consumer in order to decrease the visit of physical stores during covid-19. Lastly, purchase intention the use of e-commerce can be enhanced during and after Covid-19 pandemic situation by ensuring various factors including, facilitating consumers, satisfactory

return policies, delivery in given time and well-trained supportive staff, etc.

The term 'new normal' has been coined to suggested new way of living and supporting livelihood with the emergence of a pandemic situation in form of COVID-19. The new normal refers to highly dynamic situation where people have adopted different kinds of method and technologies for the purpose of normal routine such as work, education, and most importantly shopping. It has repeatedly appeared in the literature that the pace of digitalization has increased in the pandemic situation as digital technologies provide most important form of solutions to humanity to support their lives in the tough pandemic situation. From online education from work from home, and to online shopping and selling.

The gap in the literature has arisen which calls for undertaking research with references to role of pandemic situation in digital technologies especially in shopping and other related activities. The lockdown situation has forced people to adopt the digital technologies quickly to support their lives. The purpose of the present research is to understand the intention of people to use the e-Commerce platform in pandemic situation. The research theorized that, perceived behavioral control, perceived usefulness and social norms related to pandemic have positive impact upon the purchase intention to use e-commerce. The finding of our research suggests that the inability of people to perform their routine tasks along with the perceived usefulness of digital technologies has pushed people use e-commerce platform in the pandemic situation. Further, our findings suggest that, social norms related to pandemic such as observing the lockdown and social distancing have been instrumental accelerating people's intention to use the e-commerce platforms.

5.2 Future research Direction

The findings of present study are novel for existing knowledge fields; however, there are

some limitations as well. First, this study is conducted only in Pakistan as a developing country. In addition, a comparative study can be conducted between developed and developing countries. Second, due to COVID-19 the present is limited to 200 sample size, the research scholars could increase the sample size and confirm the behavior of studied variables. Lastly, more variables can be added to develop more complex model for new insights.

5.3 Concluding Remarks

In conclusion, it is said here that the use of e-Commerce platforms has increased significantly in times of pandemic. Our research concludes that peoples perceived behavioral control enforces the general social norms related to pandemic such as observing the social distancing, etc. Such social norms will further lead to the increased use of the e-commerce platforms. The results have also concluded that there is an important role of perceived usefulness of digital technologies. It is concluded that, digital technologies usefulness has increased over the period. Thus, in the era of pandemics, consumers were not finding any kind of difficulty in using such technologies and it led them to increase their use of the e-commerce platform for a variety of consumption reasons.

REFERENCES

1. Ab Hamid, M. R., Sami, W., and Sidek, M., M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series*, 890 (1), 012-163.
2. Abid, A., and Jie, S. (2021). Impact of COVID-19 on agricultural food: A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. *Food Front.* in press <https://doi.org/10.1002/fft2.93>
3. Afthanorhan, A., Awang, Z., and Aimran, N. (2020). An extensive comparison of CB-SEM and PLS-SEM for reliability and validity. *International Journal of Data and Network Science*, 4(4), 357-364. 10.
4. Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
5. Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior 1. *Journal of applied social psychology*, 32(4), 665-683.
6. Akossou, A. Y. J., & Palm, R. (2013). Impact of data structure on the estimators R-square and adjusted R-square in linear regression. *Int. J. Math. Comput*, 20(3), 84-93.
7. Alessa, A.A.; Alotaibie, T.M.; Elmoez, Z., and Alhamad, H.E. (2021). Impact of COVID-19 on entrepreneurship and consumer behaviour: A case study in Saudi Arabia. *J. Asian Finance. Econ. Bus.* 8, 201–210.
8. Alexa, L., Apetrei, A., and Sapena, J. (2021). The COVID-19 lockdown effect on the intention to purchase sustainable brands. *Sustainability*, 13(6), 3241.
9. Alharthey, B. (2020). The role of online trust in forming online shopping intentions. *Int. J. Online Market.* 10, 32–57.
10. Ang, T., Wei, S., and Arli, D. (2021). Social distancing behavior during COVID-19: a TPB perspective. *Marketing Intelligence & Planning*, 39(6), 809-824.
11. Aschwanden, D., Strickhouser, J. E., Sesker, A. A., Lee, J. H., Luchetti, M., Terracciano, A., and Sutin, A. R. (2021). Preventive Behaviors During the COVID-19 Pandemic: Associations with Perceived Behavioral Control, Attitudes, and Subjective Norm. *Frontiers in Public Health*, 9, 50-55.
12. Abou-Zeid, M., Schmöcker, J.D., Belgiawan, P. F., and Fujii, S. (2013). Mass effects and mobility decisions. *Transp. Lett.* 5, 115–130.
13. Bäckström, K. (2011). Shopping as leisure: an exploration of manifoldness

- and dynamics in consumers shopping experiences. *Journal of Retailing and Consumer services*, 18(3), 200-209.
14. Buskirk, R. H., and Rothe, J. T. (1970). Consumerism—an interpretation. *Journal of Marketing*, 34(4), 61-65.
 15. Cai, R., and Leung, X. Y. (2020). Mindset matters in purchasing online food deliveries during the pandemic: The application of construal level and regulatory focus theories. *International Journal of Hospitality Management*, 91, 102677.
 16. Çelik, H. (2011). Influence of social norms, perceived playfulness and online shopping anxiety on customers' adoption of online retail shopping: An empirical study in the Turkish context. *International Journal of Retail & Distribution Management*, 39(6), 390-413.
 17. Chauhan, N., Jaggi, M., Chauhan, S. C., and Yallapu, M. M. (2021). COVID-19: Fighting the invisible enemy with microRNAs. *Expert Review of Anti-Infective Therapy*, 19(2), 137-145.
 18. Cialdini, R. B., Kallgren, C. A., and Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In *Advances in experimental social psychology*, 24, 201-234.
 19. Cialdini, R. B., Reno, R. R., and Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of personality and social psychology*, 58(6), 10-15.
 20. Clark, C., Davila, A., Regis, M., and Kraus, S. (2020). Predictors of COVID-19 voluntary compliance behaviors: An international investigation. *Global transitions*, 2, 76-82.
 21. Dannenberg, P., Fuchs, M., Riedler, T., and Wiedemann, C. (2020). Digital transition by COVID-19 pandemic? The German food online retail. *Tijdschr. Econ. Soc. Geogr*, 111, 543–560.
 22. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
 23. Eger, L., Komarkova, L., Egerova, D. and Micik, M., 2021. The effect of COVID-19 on consumer shopping behaviour: Generational cohort perspective. *Journal of Retailing and Consumer Services*, 61, 102542.
 24. Emiliani, M. L., Stec, D. J., and Grasso, L. P. (2005). Unintended responses to a traditional purchasing performance metric. *Supply Chain Management: An International Journal*, 10(3), 150-156.
 25. Fishbein, M., and Ajzen, A. (1980). *Understanding Attitudes and Predicting Social Behaviour*. Preventive-Hall. Inc., Englewood Cliffs. <https://www.worldcat.org/title/understanding-attitudes-and-predicting-social-behavior/oclc/5726878>
 26. Gallè, F., Sabella, E. A., Da Molin, G., De Giglio, O., Caggiano, G., Di Onofrio, V., ... & Napoli, C. (2020). Understanding knowledge and behaviors related to Covid-19 epidemics in Italian undergraduate students: the EPICO study. *International journal of environmental research and public health*, 17(10), 3481.
 27. Hair Jr, J. F., Sarstedt, M., Hopkins, L., and Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*. *European Business Review*, 26(2), 106-121.
 28. Hair, J. F., Ringle, C. M., and Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
 29. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*. *European Business Review*, 31(1), 2-24.

30. Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., and Calantone, R. J. (2014). Common beliefs and reality about partial least squares. *Organizational Research Methods*, 17(2), 182-209.
31. Henson, R. K. (2001). Understanding internal consistency reliability estimates: A conceptual primer on coefficient alpha. *Measurement and evaluation in counseling and development*, 34(3), 177-189.
32. Husain, F., Shahnawaz, M. G., Khan, N. H., Parveen, H., and Savani, K. (2021). Intention to get COVID-19 vaccines: Exploring the role of attitudes, subjective norms, perceived behavioral control, belief in COVID-19 misinformation, and vaccine confidence in Northern India. *Human Vaccines & Immunotherapeutic*, 1-13.
33. Kallgren, C. A., Reno, R. R., & Cialdini, R. B. (2000). A focus theory of normative conduct: When norms do and do not affect behavior. *Personality and social psychology bulletin*, 26(8), 1002-1012.
34. Kim, M., J., H.; Miao, L. (2021). Hospitality corporate narratives during the COVID-19 pandemic. *Int. J. Hosp. Manag.*, 92, 102701.
35. Kim, J., Rasouli, S., and Timmermans, H. J. P. (2017). Investigating heterogeneity in social influence by social distance in car-sharing decisions under uncertainty. A regret-minimizing hybrid choice model framework based on sequential stated adaptation experiments. *Transp. Res. Part C Emerg. Technol.* 85, 47-63.
36. Koch, J., Frommeyer, B., & Schewe, G. (2020). Online shopping motives during the COVID-19 pandemic—lessons from the crisis. *Sustainability*, 12(24),
37. Kock, N. (2014). Advanced mediating effects tests, multi-group analyses, and measurement model assessments in PLS-based SEM. *International Journal of e-Collaboration*, 10(1), 1-13.
38. Lawless, H. (1995). Dimensions of sensory quality: a critique. *Food quality and preference*, 6(3), 191-199.
39. Leach, M.; MacGregor, H.; Scoones, I., and Wilkinson, A. (2021). Post-pandemic transformations: How and why COVID-19 requires us to rethink development. *World Dev.* 138, 105233.
40. Margraf, J., Brailovskaia, J., and Schneider, S. (2020). Behavioral measures to fight COVID-19: An 8-country study of perceived usefulness, adherence and their predictors. *Plos one*, 15(12), e0243523.
41. McCrae, R. R., Kurtz, J. E., Yamagata, S., and Terracciano, A. (2011). Internal consistency, retest reliability, and their implications for personality scale validity. *Personality and social psychology review*, 15(1), 28-50.
42. Nassauer, S. (2020). Walmart sales surge as Coronavirus drives Americans to stockpile. *Wall Street J.* Available online at: <https://www.wsj.com>
43. Olotewo, J. (2017). Examining the antecedents of in-store and online purchasing behavior: a case of Nigeria. *J. Market. Res. Case Stud.* 15, 1-16.
44. Pal, D., and Vanijja, V. (2020). Perceived usability evaluation of Microsoft Teams as an online learning platform during COVID-19 using system usability scale and technology acceptance model in India. *Children and youth services review*, 119, 105535.
45. Rao YH, Saleem A, Saeed W and Ul Haq J (2021) Online Consumer Satisfaction During COVID-19: Perspective of a Developing Country. *Front. Psychol.* 12:751854.
46. Redman, R. (2020). Online grocery sales to grow 40% in 2020, in *Supermarket News*. Available online at: <https://www.supermarketnews.com/online-retail/online-grocery-sales-grow-40-2020>
47. Ringle, C., Da Silva, D., and Bido, D. (2015). Structural equation modeling with

- the SmartPLS. *Brazilian Journal of Marketing*, 13(2), 56-73. 10.5585/remark.v13i2.2717
48. Rossolov, A., Rossolova, H., and Holguín-Veras, J. (2021). Online and in-store purchase behavior: shopping channel choice in a developing economy. *Transportation* 20, 1–37.
 49. Salem, M. A., and Nor, K. M. (2020). The effect of COVID-19 on consumer behaviour in Saudi Arabia: Switching from brick and mortar stores to E-Commerce. *International Journal of Scientific & Technology Research*, 9(07), 15-28. <https://www.ijstr.org/final-print/jul2020/The-Effect-Of-Covid-19-On-Consumer-Behaviour-In-Saudi-Arabia-Switching-From-Brick-And-Mortar-Stores-To-E-commerce.pdf>
 50. Sembada, A. Y., and Koay, K., Y. (2019). How perceived behavioral control affects trust to purchase in social media stores. *Journal of Business Research*, 130, 574-582.
 51. Steensma, H., and Erkel, D. (1999). Reactance to perceived external pressure to introduce quality assurance standards in organizations. *Psychological Reports*, 85(3), 1077-1080.
 52. Sukendro, S., Habibi, A., Khaeruddin, K., Indrayana, B., Syahrudin, S., Msakadada, F. A., and Hakim, H. (2020). Using an extended Technology Acceptance Model to understand students' use of e-learning during Covid-19: Indonesian sport science education context. *Heliyon*, 6(11), e05410.
 53. Sherif, M. (1936). *The Psychology of Social Norms*. Oxford: Harper
 54. Tarhini, A., Alalwan, A. A., Al-Qirim, N., and Algharabat, R. (2021). An analysis of the factors influencing the adoption of online shopping. *Research Anthology on E-Commerce Adoption, Models, and Applications for Modern Business*, 363–384.
 55. Tran, L.T.T. (2021). Managing the effectiveness of e-commerce platforms in a pandemic. *J. Retail. Consum. Serv*, 58, 102287
 56. Tajfel, H. (1978). *Differentiation Between Social Groups. Studies in the Social Psychology of Intergroup Relations*. London: Academic Press.
 57. Vijayasarathy, L. R. (2004). Predicting consumer intentions to use on-line shopping: the case for an augmented technology acceptance model. *Information & management*, 41(6), 747-762.
 58. Xayrullaevna, S.N.; Pakhritdinovna, K.D., and Anvarovna, B.G. (2020). Digitalization of the economy during a pandemic: Accelerating the pace of development. *JCR*. 7, 2491–2498.
 59. Zait, A., & Berteau, P. S. P. E. (2011). Methods for testing discriminant validity. *Management & Marketing Journal*, 9(2), 217-224.
 60. Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2000). *Business research methods 6th edition*. Fort Worth, Texas.