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Pandemic COVID-19 And Consumer Behavior: Moderation And Mediation Of Socioeconomic Factors

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Abstract

COVID-19 has rapidly affected consumer behaviour and perception towards risk decisions. The variations in consumer behaviour have consequences on everyday life during and after the lockdown. A comprehensive theoretical and conceptual framework of consumer behaviour during the pandemic COVID-19 has been developed which was supported through grand models of consumer decision-making, facing situations during and after COVID-19, household members, income factors, employment status, education and gender which was collected by survey. Such a type of survey has not been conducted in previous literature. Consumer behaviour is measured through a multi-dimension index (health, education, daily and large households' purchases) using the principal factor analysis. Results showed that all the social and economic factors have different effects on consumer behaviour during the lockdown. It demonstrates that after lockdown it would be very difficult to normalize consumer behaviour in the business sectors. For the sake of growth in the business sector, it is necessary to address all these fluctuations in consumer behaviour. The households of the districts Bahawalpur and Rahim Yar Khan of Pakistan were selected as the target population for the study. Primary Through the use of a questionnaire & randomly stratified test, data from 300 families were obtained. Approximate least[1] squares and quantitative approaches were used to evaluate the data. All results have been proven experimental and stated the situations faced during COVID-19 have positively and significantly affected consumer behaviour and these results followed with grand models as education, income factors, gender and employment status have significantly affected consumer behaviour directly or indirectly. Similarly, employment status, education, marital status, gender and household members have a favourable and substantial impact on the circumstances faced during COVID-19 and income factors played the mediating role. The current study concluded that the pandemic COVID-19 changed consumer behaviour along with social and economic factors during and after the lockdown.

Keywords: *Consumer behaviour, Pandemic COVID-19, Lockdown, Social and Economic factors.*

Introduction

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The adverse impact of pandemic COVID-19 is observed in every sector around the world. All the sectors of Pakistan were badly affected by COVID-19 and the lockdown made the situation more severe. The business sector needs to measure consumer behaviour for growth and increase market share. The COVID-19 crisis had severe impacts on the purchasing behaviour and consumption patterns of the people and their well-being. Therefore, the consumer's consumption pattern diverted their attention during the period of crises (Cruz-Cárdenas et al. 2021). COVID-19 is wreaking havoc on the global economy, and this pandemic is causing massive disruptions to people's health and lives, as well as financial sectors throughout the world. This disease not only has effects on the health sector but huge effect on the business sector or consumer behaviour. Many businesses were shut down due to the lockdown in the world. Due to this reason, many people faced financial problems and lost their businesses (Zwanka & Buff 2021).

After this many people joined the online business and started the business. On the other side, consumers faced a difficult time because the Government applied lockdown in the market so the consumers difficult to purchase anything (Ricker 2020). COVID-19 has revolutionized the retail industry and the consumer experience. There was an increment in consumption and a decline in the regularity of purchases when compared to the prior quarter. Consumer trust is at an all-time low, and consumers are concerned about the future time (McCarty 2020). Anti-coronary efforts have cost billions of dollars, while E-commerce is setting new records. This Covid changed consumer shopping behaviour. Electronic content is a platform for exchanging goods or client material, whether it comes from marketing or customers. Marketers may make their items available immediately and at a low cost. Customers may easily communicate about their buying experiences because of the ease with which they can exchange electronic information. Consumers may also obtain digital information quickly and inexpensively. Many customers have migrated to online purchasing at this time, and major initiatives like Siri Apple, Amazon Eco, Google, Facebook book Food Panda, and others have benefited from this trend (Rainey & McCaskill 2020). Many consumers face a problem in online shopping just like "Users may attempt to purchase a product but are unable to do so because they are unable to add it to their shopping cart or because they are unable to pay for it. As a result, customers abandon the website without making a purchase and for many e-commerce retailers, this is a critical concern (Vanneschi et al. 2018).

Crosta et al. (2021) described consumer behavior and psychological factors during the Covid 19 pandemic in Italy This study covered the period 1st April 2020 to 20 April 2020 when the pandemic was at a peak level. This study finds a 60.48% increase in general spending level during the first week of COVID-19. This study collected the primary data through interviews of 360 individuals. The results were obtained through SPSS-21. According to this survey, 95% of women were afraid of the COVID-19 and men were less afraid in comparison with women. This study found a significant relationship between intention to buy and overall risk (Hesham, Riadh and Sihem, 2021). A predictive model was developed using a machine learning method to predict customer behaviour in online buying. This study finds that COVID-19 period, gender characteristic has the least effect on boosting the number of transactions. As may be inferred, interest in internet buying increases with age (Safara, 2020). Patil and Patil (2020) explored the effects of the COVID-19 virus on Consumer Behavior during the period when 22nd March 2020 declared the public curfew in India from 25 March to 15 March 2020. This study collected the primary data through the questionnaire which is available on Google form by asking forked questions. The Researcher selected 33 people who responded to this questionnaire. This research concluded that when the government imposed a curfew for 21 days so large number of people were buying basic needs commodities from the market without keeping social

distance. According to this survey, 96.66 % of those surveyed acknowledged that the lockout had an impact on their purchasing decisions. Out of the 30 participants, 28 concur that there was discontent and dread due to the epidemic condition. Ahmed, Streimikiene, Rolle, and Duc (2020) examined the study of the effect of the COVID-19 pandemic on US Consumer behaviour. This study was based on the theory of fear. The findings supported peer buying, a lack of critical supplies on store shelves, US stimulus checks, a restricted supply of necessities, and fears of a total lockdown. This study collected the primary data through the survey which is available on online and offline platforms. 889 Consumers responded to this survey. According to this survey, fake news had huge effects on consumer behaviour. COVID-19 was found to have a strong mediating impact on US people's impulsive purchasing behaviour.

On the other side, Maryati (2020) investigated the question of what is changing in consumer behaviour due to COVID-19. This study explained that fear of COVID-19 had a huge effect on consumer behaviour. Before COVID-19, online sales consisted of 8% on food commodities and 12% on Non-Food commodities but after COVID-19 online sales of food commodities were 6% and 14% on non-food commodities. This research explains that 82% were worried about their health and 88% people worried about economic problems due to lockdown and government policy.

To add to the literature, Ali (2020) checks the effect of the COVID-19 virus on Consumer behaviour toward online sales and purchase modes in Iran. This Research covered the period of the first half of 2019 and 2020. This study adopts the Secondary data from Samsung sale which data is provided by Samsung distributor (Group of Bayad). Some companies face a difficult problem with online sales our durable goods. This study finds the results when first time COVID-19 appeared in Iran so decreased the sale of Samsung electronic goods. Total sales in the first half of 2020 by 24 percent as compared to 2019. This is noted that TV, Smartphones, and home cleaners increased in 2020 as compared to 2019 while AC and washing machines etc demand decreased (Bhatti et al. 2020). At the same time, Guthrie, Wamba and Arnaud (2021) checked the effect of before, during, and after COVID-19 on the online consumer. The goal is to get a good sense of how customers utilize online shopping to respond to, deal with, and adjust to times when natural limitations are present. This study collected the data at two levels first is French country level from different sources to describe the trend in COVID-19 and second is cyberpharma website during the COVID-19 period.

This study discovered that people who shop online respond to life stress, deal with them, and then adapt. This validates the value of the react-cope-adapt paradigm for guiding limited consumer behaviour in an online setting. The study follows the Grand models of decision-making that affect the consumption pattern. These models were introduced during the 1960s and 1970s and are considered the "grand models" of consumer behaviour or the most important ideas of decision-making. As a result, the study of consumer behaviour did not develop purely theoretically (Sirakayaa and Woodsideb, 2005). Grand models are still regarded as the most well-known consumers to make models (Erasmus, et al., 2001) and are frequently used by writers to describe the process of buying goods and services. Magnificent designs have been used by investigators to clarify customer behaviour since the days when there was only a restricted theorist on the subject.

1.2 Theoretical and Conceptual Framework

There are five common stages in all the grand models that have been designed to explain how and where to manage decision-making during any pandemic: motivation, information search, alternative appraisal, decision, and post-decision behaviour.

1. Identifying the issue is the first step. By identifying the issues, they encountered during the COVID-19, the first step of grand models in a pandemic scenario indicates how people may plan to change their consumption to meet their demands (ref).

2. Informational Research: Literature on consumer behaviour has investigated several ideas regarding the seeking of market and product information that is appropriate in unavoidable situations (Money &Crotts, 2003). Two categories of searches that customers conduct while they decide which products to buy have been discovered by consumer behaviour research. Income and consumer education considerations may be useful during this stage

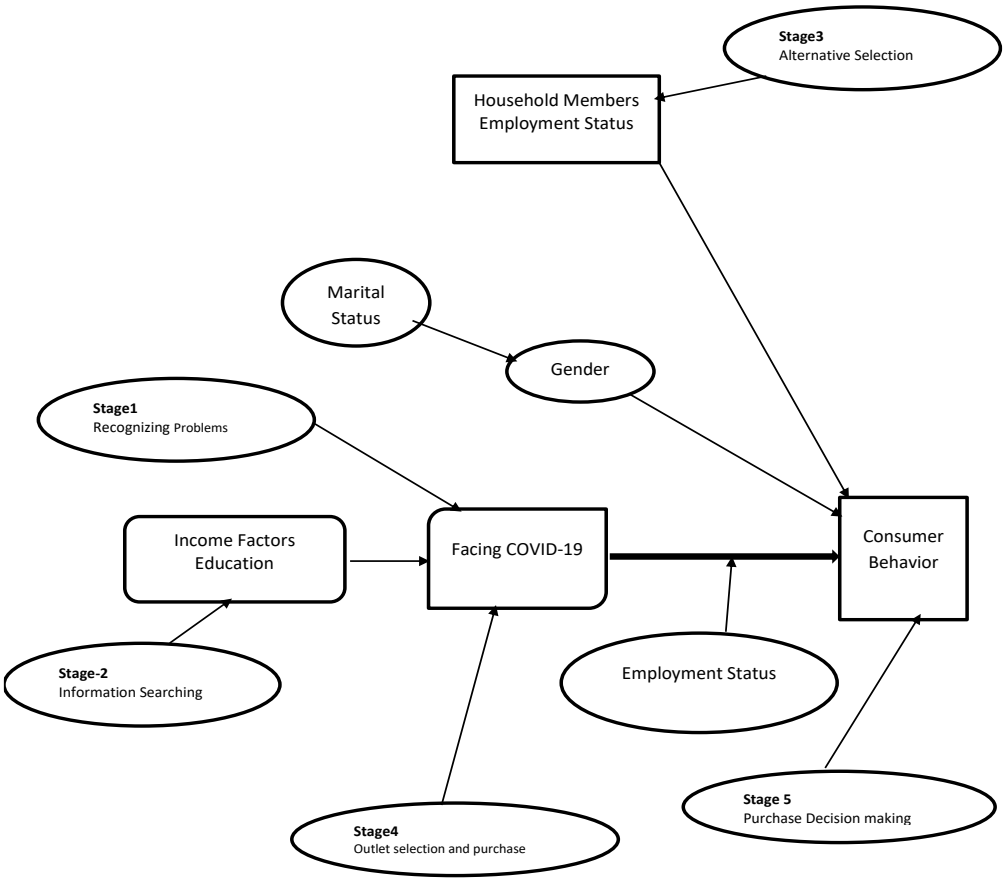
Stage 3- Assessment of Alternative Solutions: Consumers must carefully consider all available options before making their final choice from a wide range of equally viable goods. (Kolb, 2006).

Stage 4- Purchase: The purchase process of a suitable and economical product after the evaluation stage can be very difficult. The consumer's choice to purchase a product will be made following the findings of the assessment process. Depending on the cost, it may be straightforward or complex. and the quality of the product followed by the existing situation during COVID-19.

Stage 5- Post Purchase: Previous studies fully support that consumer satisfaction depends on post-purchase behaviour intentions. In the consumer behaviour context, a satisfied consumer will have intentions to participate in the market activities despite any pandemic situations like COVID-19.

Regarding the points above, this study concludes that There are several parallels between COVID-19 customer behaviour and selection. General theories of customer behaviour are thus appropriately relevant in the context of the COVID-19 pandemic.

Figure 1: Conceptual Framework following the five stages of grand models



Following these grand models on consumer behavior a multi-stage process which is explained in information, five key phases, problem identification searching, replacement selections, choosing, buying, and post-purchase processes at outlets. According to this hypothesis, the process of determining decisions resembles a funnel, in that consumers whittle the options available. The choices are influenced by socio-economic elements like education, gender, and employment status (Sirakayaa and Woodsideb, 2005). In the context of the global pandemic Attractive customer decision-making models are among the most important consumer processes of determining decision models in literature and helped shape numerous destination choice models. (Yoo and Chon, 2008). The central theme of grand models in the COVID-19 Pandemic context discusses stages an individual will take after recognizing that there is a need to adjust his consumption pattern and revise his decision making There are five basic steps in all the great models that have been created to describe how to handle judgement during the COVID-19 epidemic: motive, information seeking, alternate appraisal, choice, and post-decision behaviour.

The following assumptions are thus based on the literature review mentioned above.

H1: The Grand Model of Consumer Decision-making has a positive and significant effect on Consumer Behavior During Lockdown.

H2: The Grand Model of Consumer Decision-making has a positive and significant effect on Consumers Facing the situation of COVID-19.

H3: The Grand Model of Consumer Decision-making has a positive and significant effect on Consumers' income factors.

H4: Facing COVID-19 has significant and positive effects on Consumer Behavior

H5: Household members have a significant and positive influence on Consumer Behavior

H6: Facing COVID-19 has a significant and positive effect on Consumer Behavior with the mediation of Income factors

H7: Facing COVID-19 has a significant and positive effect on Consumer Behavior with the moderation of marital status

H8: Facing COVID-19 has a significant and positive effect on Consumer Behavior with the mediations of Education

H9: The gender of Consumers has a significant and positive effect on Consumer Behavior with the mediations of marital status.

1. METHODOLOGY AND DATA ANALYSIS

2.1 Sample and Data Collection Procedure

The main target for this research is the business community in Pakistan because participants from this region are most qualified to comprehend and cope with the logistical concerns associated with consumption during COVID-19. As a direct consequence of this, the participants in the business community fit perfectly with the demographic and research parameters. The sample was chosen by the use of a straightforward random sampling method. Three hundred people from the cities of Sargodha, Lahore, and Bahawalpur have been chosen to participate. In addition, the information was collected via the use of a bespoke form in the form of a survey. For this study, both online and offline surveying methods were used. The online survey was shared over WhatsApp from a variety of clients within the business community. To develop a survey that is capable of data collection on its own, an online survey form was utilized. When respondents complete the form and submit it, the survey is created.

TABLE 1: Operational Definition of Variables

Variables	Description	Measurement Scales
Consumer Behavior	Consumer Behavior Toward Online Shopping	Preferred to Decrease=1, Remained same=2, Preferred to increase=3
	Consumer Behavior Toward Household Savings	Preferred to Decrease=1, Remained same=2, Preferred to increase=3
	Consumer Behavior Toward Children's Education	Preferred to Decrease=1, Remained same=2, Preferred to increase=3
	Consumer Behavior Toward	Preferred to

	Households Daily purchase	Decrease=1, Remained same=2, Preferred to increase=3
	Consumer Behavior Toward HouseholdsLarge purchase	Preferred to Decrease=1, Remained same=2, Preferred to increase=3
	Consumer Behavior Toward Health	Preferred to Decrease=1, Remained same=2, Preferred to increase=3
Situation Facing During COVID-19	Are you facing any health problems During the Down	Yes = 1 No = 0
	Any family member has covid 19	Yes = 1 No = 0
	Any person in the city has covid 19	Yes = 1 No = 0
	Taking treatment from the hospital	Yes = 1 No = 0
Income Factors	Income During Lockdown	Continuous
	Expected Income After Lockdown	Continuous
Household Members	Total family member	Continuous
	Total working member	Continuous
Gender	Gender of the Respondent	Male = 1 Female = 0
Employment Status	Employment status of the Respondent	Not Employed = 1 Employed = 0
Marital Status	Marital status of the Respondent	Married = 1 Not Married = 0
Education	Education of Respondent	In a number of Years

2.2 Statistical Techniques

Partial Least Square – is the latest technique to analyze small sample data Because it does not depend on the assumption of regularity, PLS-SEM may be used even for very small sample sizes (Hair, Ringle, & Sarstedt, 2011; Ringle, Wende, & Becker, 2015). In addition to that, PLS-SEM analysis of the outcomes during the exploration stage is something that may be done. PLS-SEM is the method of choice for carrying out the analytic process given the current state of this study, which is still in the exploratory phase, and the relatively small sample group (Hair et al., 2011).

Research Instruments

The bulk of the variables in this study were evaluated with the use of a questionnaire that was structured around the scales and ranges that are shown in Table 1. Variables that had an outer loading that was lower than 0.7 were removed from consideration and did not go through any further research.

Table 2: Fornell and Larcker Criterion Method for Discriminant Validity

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

1. Consumer Behavior	**0.832**									
2. Education	-0.176	**1.000**								
3. Employment Status	-0.206	0.718	**1.000**							
4. Facing COVID-19	0.056	0.031	-0.097	**0.834**						
5. Gender	0.007	-0.014	-0.024	-0.008	**1.000**					
6. Household Members	0.204	-0.108	-0.151	-0.053	-0.040	**0.947**				
7. Income Factors	-0.098	0.655	0.353	0.045	0.027	0.087	**0.964**			
8. Marital Status	0.069	-0.115	-0.108	-0.007	0.007	0.048	-0.178	**1.000**		
9. Moderating Effect	-0.043	0.266	0.043	0.045	-0.012	0.253	0.776	0.123	**1.000**	
10. Quadratic Effect	-0.044	0.269	0.043	0.046	-0.012	0.256	0.785	0.124	1.005	**1.000**

Bold diagonal values are the square root of AVE.

Structural Equation Model

Research instruments and structural equation modelling are the two sub-models of the conceptual model. Various parameters are used to examine these 2 models in various ways. Analysis of the measurement items using Table 3's explanations of reliability and validity as opposed to this, the structured model is examined using the regression parameter and significance levels, with the t-value and p-value indicated in Table 4's analysis of the two variables.

Table 3: Measurement Model Results

Indicators	Loadings	Dimension	Composite Reliability	Average Variance Extracted (AVE)
CB-1	0.831			
CB-2	0.942	Consumer Behaviour	0. 0.938***	0. 0.790***
CB-3	0.866			
CB-4	0.932			
CB-5	0.667			

CB-6	0.898			
AFHPDL	0.826	Facing COVID-19	0..915***	0.488***
AFMC	0.857			
APCC	0.912			
TTH	0.893			
I1	0.982	Income Factors	0.982***	0.965***
I2	0.983			
TFM	0.969	Household Members	0.937***	0.897***
TWM	0.807			
<- Moderating Effect 1	2.530	Income Factors * Income Factors	1.000	1.000
<- Quadratic Effect 1	2.530	Income Factors * Income Factors	1.000	1.000
Single Indicator		Respondent Education	1.000	1.000
Single Indicator		Marital Status of Respondent	1.000	1.000
Single Indicator		Gender of Respondent	1.000	1.000
Single Indicator		Treatment Taking from Hospital	1.000	1.000

P< 0.001= ***

a) Measurement Model

In table no.3 reliability is measured through composite reliability which represents the overall reliability of the data. According to the available research, some 0.6 is the very minimum that may be considered acceptable. (Hair et al., 2011; Nunnally & Bernstein, 1994). In this particular piece of study, every variable had a reliability coefficient value that was higher than 0.9. As a result, each of the variables that were considered for inclusion in this research has convergent validity. There is a substantial difference between the reversal of composite dependability. It illustrates the degree to which two or more variables are distinct from one another. The discriminating validity of a test may be determined with the use of correlation coefficients. When evaluating the discriminant validity of a test, one option is to utilize an average variance extract (AVE). If the average variance extracted from the items is greater than 0.5, there are no issues with the construct validity of the items (Fornell & Larcker, 1981; Hair et al., 2011). As can be seen in Table 3, each of the variables that were investigated in this study had AVE values that were more than 0.5. As a result, there is no question about the construct validity of these findings. In addition, it is possible to assess the discriminant validity of PLS-SEM using the Fornell and Larker approach (Fornell and Larcker, 1981), as seen in Table 2. The data may be used for future research, and both tables provide empirical evidence that demonstrates the discriminant validity of all variables. The results of the Smart PLS computation for the outer loadings of the items are shown in Table 3, together with their respective t-statistics, Cronbach Alpha values, composite reliability, and average variance extract (AVE) values.

Structural Model

In PLS-SEM, the structural model is the second model that is analysed after the initial model. The significance of a value's measurement may be determined via the use of regression analysis. If the significant value of the route is less than 0.5, then it has been given the green light. (Chin, 1998, 2010; Sanchez, 2013). The researcher who conducted this study, however,

judged findings as low as 0.10 to be significant. The results of an investigation of all direct and indirect channels are shown in Table 4.

Table 4: Research model validation

	Standard Deviation	**T Statistics**	**P Values**
EDu -> Facing COVID-19	0.159	4.122	0.000
ES -> CB	0.095	7.558	0.000
ES -> Facing COVID-19	0.107	4.519	0.000
Facing COVID-19 -> CB	0.085	2.386	0.017
Gender -> CB	0.072	1.615	0.106
Gender -> ES	0.071	9.504	0.000
Household members -> CB	0.064	1.825	0.068
Income Factors -> CB	0.132	0.121	0.904
Income Factors -> Facing COVID-19	0.184	18.617	0.000
Income Factors -> Household members	0.118	2.177	0.029
MS -> Facing COVID-19	0.083	3.288	0.001
Moderating Effect 1 -> Facing COVID-19	0.055	3.466	0.001
Quadratic Effect 1 -> Household members	0.048	2.391	0.017
Indirect Effects			
Gender -> ES -> CB	0.012	0.524	0.601
EDu -> Facing COVID-19 -> CB	0.023	2.639	0.008
Quadratic Effect 1 -> Household members -> CB	0.016	2.307	0.021
Gender -> ES -> Facing COVID-19	0.005	0.582	0.561
Moderating Effect 1 -> Facing COVID-19 -> CB	0.024	0.073	0.941
ES -> Facing COVID-19 -> CB	0.008	3.188	0.001
MS -> Facing COVID-19 -> CB	0.002	0.076	0.939
Gender -> ES -> Facing COVID-19 -> CB	0.019	2.077	0.027
Income Factors -> Facing COVID-19 -> CB	0.033	1.899	0.058
Income Factors -> Household members -> CB	0.019	1.999	0.048

All the path coefficient of Figure 2 depicts the results of structural equation modelling, including all of the route coefficients and cross-loadings for each item.

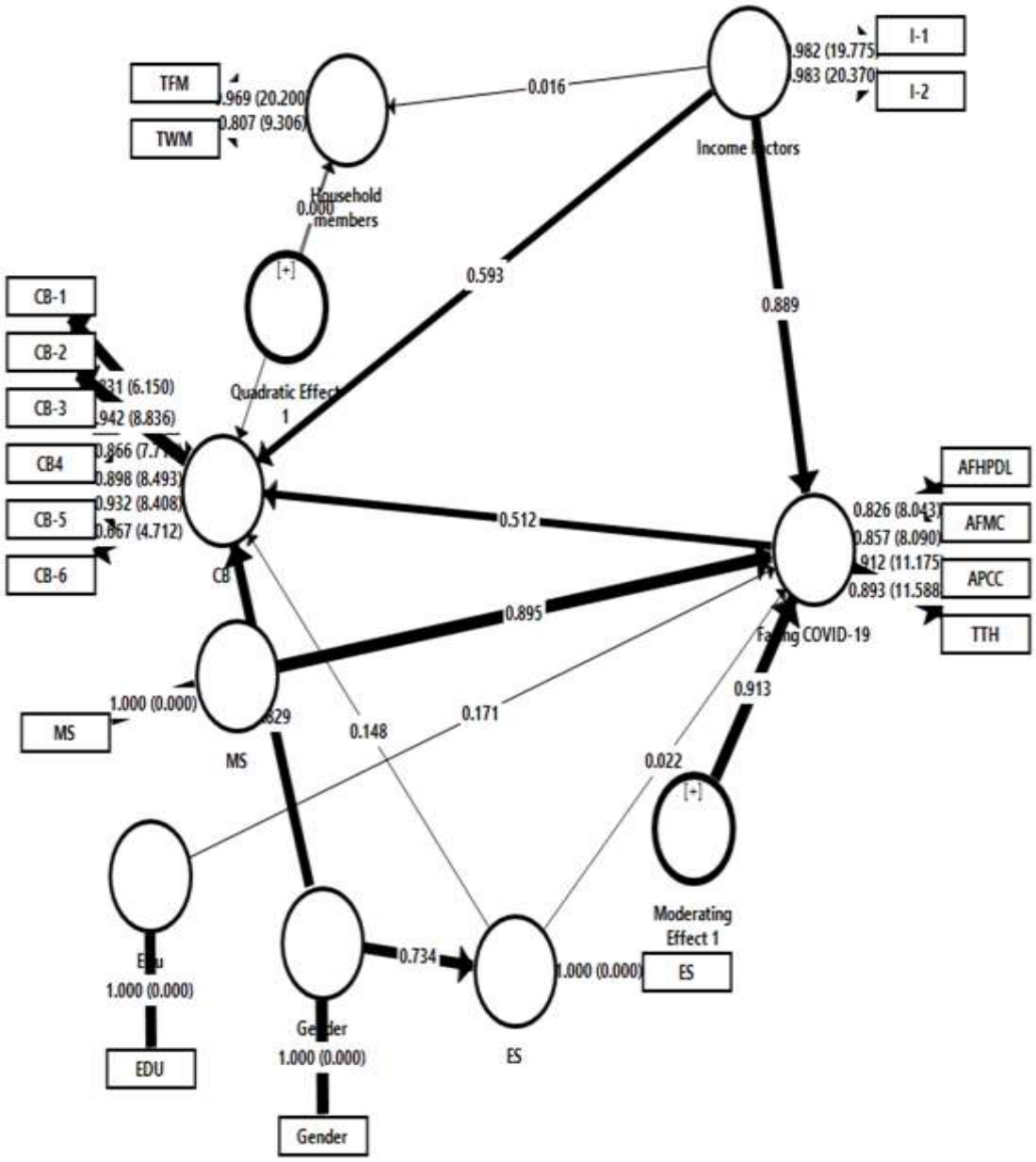


Figure 2: Path Coefficients for Organizational Performance

Q^2 Construct Cross validated Redundancy

By applying Smart PLS, the construct cross-validated redundancy has been verified, showing predictive significance. The findings are shown in Table 5.

Table 5: Q2 Cross Validity Redundancy

	SSO	SSE	Q^2 (=1-SSE/SSO)
	SSO	SSE	Q^2 (=1-SSE/SSO)
CB	1254.000	1189.360	0.052
Edu	209.000	209.000	
ES	209.000	210.252	-0.006
Facing COVID-19	836.000	826.617	0.011

Gender	209.000	209.000	
Household members	418.000	393.495	0.059
Income Factors	418.000	418.000	
MS	209.000	209.000	
Moderating Effect 1	209.000	209.000	

5 CONCLUSION AND DISCUSSION

This research is conducted to examine the during the COVID-19 epidemic, consumer preferences. This research has constructed and conducted in-depth surveys for data collection. A pandemic usually imposes a risk and thus analyzing consumer behaviour during this pandemic is another way of assessing consumer behaviour during risky situations. We have used the Grand models of consumer behaviour to assess the consumers' buying behaviour during the pandemic situation. Consumer behaviour is captured through a multidimensional index that involves important factors such as health, education, and daily and large household purchases. The households of Bahawalpur and Rahim Yar Khan are selected as the target population in this study. Discriminant validity is measured through average variance extract (AVE) and Fornell and Larker method and both measures show that there is no issue of discriminant validity between variables. Results of the partial least squares structural equation model also corroborate the results of the measurement models that COVID-19 has positively and significantly affected consumer behaviour in the regions of Bahawalpur and Rahim Yar Khan. Other variables such as education, income factors, gender and employment status also affected consumer behaviour. Since lockdowns during COVID-19 have forced workers to stay at home they had ample time for consumption. This could be the reason behind the positive impact of COVID-19 on consumer behaviour. Furthermore, boosting impunity requires the consumption of healthy foods in sufficient amounts also seems to play a part in this positive effect.

6. CONFLICT OF INTEREST

Authors declare no conflict of interest

7. ACKNOWLEDGEMENT

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