Expert Journal of Marketing, Volume 8, Issue 2, pp.140-150, 2020
 ISSN 2344-6773
Marketing.ExpertJournals.com

Understanding Consumers' Online Shopping Behavior during the Covid-19 Pandemic – Empirical Research

Simona VINEREAN*

Lucian Blaga University of Sibiu, Romania

The COVID-19 pandemic has impacted our daily behavior, from interactions with friends, colleagues, and family, to safety measures and working. Additionally, this pandemic has dramatically changed consumers' shopping behavior. The purpose of this research paper is to examine the impact of Covid-19 pandemic on consumer behavior. Thus, this paper proposes a new model that incorporates three variables: attitude for online shopping during the COVID-19 pandemic, budget considerations during the COVID-19 pandemic, and future behavioral intention after the COVID-19 pandemic. This study's main research approach is a quantitative survey and examination using a sample of Romanian consumers. Additionally, the proposed hypotheses were examined in a SEM model and all the hypotheses were supported based on the empirical analysis. This study adds theoretical contributions by assessing the changes of consumers' online shopping behavior during the COVID-19 pandemic. Managerial implications, study limitations and future avenues for research are also discussed.

***Keywords**: COVID pandemic, coronavirus, consumer habits, online shopping, digital setting, consumer behavior changes*

***JEL Classification:** M31*

1. Introduction

The development of Internet and digital technologies have enabled e-commerce platforms to transform the retailing landscape. Even before the pandemic, consumers have expressed their acceptance of the new digital retail framework in which they were more empowered and influential than ever before. In a digital shopping setting, consumers can compare products and features, prices and quality levels, express their opinions on past purchases, research new acquisitions and collaborate with companies on new product development.

However, since the pandemic erupted, apps and social media have transformed consumers' buying behavior to a larger extent.

*Corresponding Author:
Simona Vinerean, Lucian Blaga University of Sibiu, Faculty of Economic Sciences, Romania
ORCID: orcid.org/0000-0001-9253-0196

Article History:
Received 30 October 2020 | Accepted 11 December 2020 | Available Online 29 December 2020

Cite Reference:
Vinerean, S., 2020. Understanding Consumers' Online Shopping Behavior during the Covid-19 Pandemic – Empirical Research. *Expert Journal of Marketing*, 8(2), pp.140-150.

During this difficult period characterized by contagion, lockdowns, and economic uncertainty, consumers have changed their purchasing behavior. Nonetheless, as consumers' behavior changes, this provides new opportunities for organizations to adapt and tailor the experiences of targeted audiences. These new buyer practices have significant ramifications for retailers and consumer-packaged-goods companies (McKinsey & Company, 2020a).

In examining the impact of COVID-19 on consumer behavior, Sheth (2020) explains the contextual aspects that might also have an effect on consumption. Sheth (2020) analyses four contexts that transform consumers' behavioral patterns, such as (a) social contexts (major life events), (b) technology and its effect on disrupting old habits, (c) rules and regulations that arise based on public policies, (d) natural disasters and pandemics.

In the current context of the COVID-19 pandemic, all these contextual aspects have to a certain degree affected consumers and their purchasing behavior. Since the beginning of the COVID-19 outbreak (early 2020), "consumers have displayed stockpiling behaviors that significantly deviate from their usual shopping behavior" (Eger et al., 2021). Consumers are reacting in a number of ways to the crisis. On one hand, some people are nervous and worried, prompting them to purchase essentials and hygiene products in a panic. On the other hand, some people are unconcerned about the pandemic and are going about their business as normal, ignoring government and health-care practitioners' advice (Accenture, 2020). Additionally, customers are considering the transition to online shopping after discovering the convenience and safety of home delivery, store pick-up opportunities, and cashless transactions (Eger et al., 2021).

In line with these changes, the motivation behind this paper is to examine the effect of the COVID-19 pandemic on customer behavior. More specifically, this paper focuses on the prolonged effects of the patterns acquired by consumers during the pandemic. The model proposed in this paper can be used to understand the purchase decisions of the customers during the pandemic and after the pandemic, as they express their future intent.

This paper is structured in six parts. The second section includes the conceptual background for this study and the hypotheses proposed for the empirical model. The third section expands on the research methodology and the fourth section presents the results of the exploratory factor analysis, confirmatory factor analysis and the structural equation model. The fifth section discusses the findings, whereas the sixth section elaborates the theoretical contributions, managerial implications, limitations of the study, and proposals for future research on this topic.

2. Conceptual Background and Hypothesis Development

This paper aims to examine a model of consumer behavior during the COVID-19 pandemic, based on three hypotheses and three concepts, that will be explored in this section.

2.1. Attitude for Online Shopping during the COVID-19 Pandemic and Enduring Effects After the Pandemic

Ajzen (1989) defined attitude as "the feelings that consumers like or dislike the on-line information system for travel products". Attitudes will be generally positive towards practices and behaviors that will exhibit appreciated results and outcomes for consumers (Mehrolia et al., 2020). Numerous investigations found that beliefs with emotional connotations will provide better outlooks for future behaviors than cognitive beliefs. (Mehrolia et al., 2020; Conner et al., 2011; Lawton et al., 2009).

In relation to using a particular system or software, the Technology Acceptance Model (Davis, 1986; Davis et al., 1989) asserts that there is a positive relationship between attitude towards a software and the behavioral intention to use that software. Similarly, this paper asserts that a positive attitude for shopping on digital platforms will have a positive influence on the future behavioral intention after the COVID-19 pandemic. However, for this study new scale items were proposed to examine this latent variable, considering the context of the pandemic.

Consumers have a predisposition to use technology in daily activities, that range from searching, interacting, ordering products online. The coronavirus outbreak has impacted consumers accessibility of store premises, especially considering their health concerns (Eger et al., 2021). As such, there has been an exponential demand for alternative distribution channels. An Accenture report (2020) found that "digital commerce has also seen a boost as new consumers migrate online for grocery shopping – a rise that is likely to be sustained post-outbreak".

Although online grocery shopping has grown steadily but slowly over the last decade (Harris et al., 2017), it has increased dramatically during the COVID-19 pandemic crisis (Pantano et al., 2020). In addition,

older and less technologically savvy customers have begun to discover and appreciate online shopping, embracing the security that technology provides (Eger et al., 2021). Based on these premises, in this paper we aim to explore the following hypothesis:

H1: Attitude for online shopping has a positive effect on the future behavioral intention of consumers after the COVID-19 pandemic.

2.2. Budget Considerations during the COVID-19 Pandemic

Various reports (McKinsey & Company, 2020b; KPMG, 2020) highlight the potential restrains of consumers in terms of their budget, especially as they relate to a wider macroeconomic environment. A divergent sentiment is mentioned in the context of various spending intent categories (McKinsey & Company, 2020b; KPMG, 2020). Divergent sentiment is also reflected in spending intent across categories. In most countries, consumers intend to continue shifting their spending to essential products, while cutting back on most discretionary categories.

The McKinsey & Company (2020a) report highlights different potential behaviors with temporary and enduring effects even after the pandemic. As such, the report anticipates an enduring effect in terms of consumers' price sensitivity, trading down to more accessible products, and reduction of discretionary spending (McKinsey & Company, 2020a, p.4).

The pandemic generates negative emotions for people, and one key emotion is fear. As Solomon (2018) explained, fear and negative associations related to a particular event can lead to changes in consumer behavior. In this regard, the Covid-19 pandemic has changed consumer purchasing behavior as consumers fear contagion (Laato et al., 2020). In recent years, the Fear Appeal principle has not been widely used in academic studies. Fear Appeal, according to Lai et al. (2016), consists of three major concepts: perceived effectiveness, danger, and fear. As proposed by Wegmann et al. (2017), Fear Appeal can be divided into fear control and danger control. Fear control focuses on emotional responses to risk and danger, whereas danger control directs customers' adaptive behavior to avoid it. (Accenture, 2020; Eger et al., 2021).

To this extent, fear might have an impact on consumers' budget considerations. Thus, when consumers are fearful or uncertain on the future, they will not engage in normal shopping behavior and will restrain their budget spending (McKinsey & Company, 2020b; KPMG, 2020). Hence, budget considerations will have a negative impact on consumers' future behavioral intention. In this paper, the behavioral intention will aim to explain consumers shopping behavior after the COVID-19 pandemic, whether they will continue to maintain their acquired patterns for online shopping or will opt for traditional retailing practices. For this study, new scale items were developed to reflect a variable titled 'Budget considerations'. Also, new scale items are proposed for 'Future behavioral intention after the COVID-19 pandemic'. Thus, we propose that:

H2: Budget considerations have a negative effect on the future behavioral intention of consumers after the COVID-19 pandemic.

Consumers are increasingly worried about the effects of COVID-19, according to Accenture (2020), both from a health and economic standpoint. The study's results (Accenture, 2020) revealed that purchases were focused on the most basic needs, people shop more mindfully, they tend to purchase local products, and that they were embracing digital shopping. COVID-19 is a public health and economic crisis with long-term consequences for "consumer attitudes, behaviors and purchasing habits" (Accenture, 2020). Disruption on consumers' budgetary considerations change upon difficult situations. As a BCG (2020) report notes, upon the global financial crisis of 2008–2009, disruptions were visible in the retail landscape and the COVID-19 pandemic may prove to exhibit the same effect on final consumers.

Consumers' attitudes for online shopping are related to their budget spending and considerations, especially as they relate to paying attention to budget, saving money on shopping due to online platforms' features. Additionally, due to the pandemic consumers might reflect a predisposition to switch to less expensive products to save money. Therefore, we hypothesize:

H3: Attitude for online shopping will have a positive effect on budget considerations during the COVID-19 pandemic.

Based on these proposed hypotheses, this study aims to investigate the following model, presented in Figure 1, using the SEM procedure in AMOS.

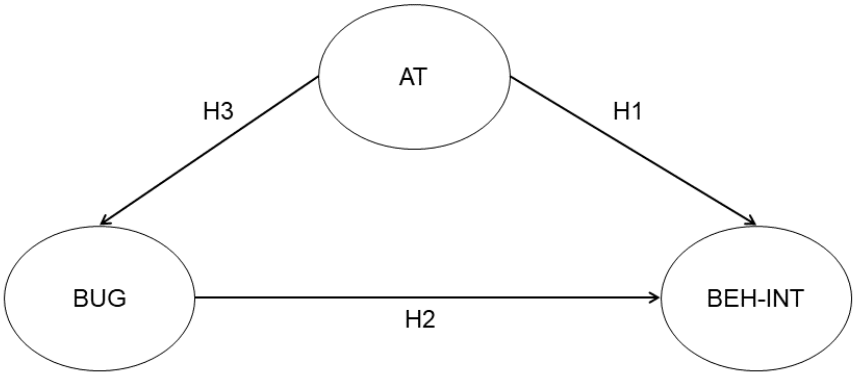


Figure 1. *Proposed model to assess consumers' shopping behavior as related to the COVID-19 pandemic*

Note: AT = Attitude for online shopping during the COVID-19 pandemic, BUG = Budget consideration during the COVID-19 pandemic, BEH-INT = Future behavioral intention after the COVID-19 pandemic

3. Research Methodology

For this empirical study on the impact of the COVID-19 pandemic on consumer behavior, a cross-sectional survey was applied to a convenience sample, which reflects a justifiable approach, utilized in most research. Respondents were invited to participate in an online survey and describe their own shopping behavior exhibited during the coronavirus pandemic.

The survey included questions on consumers' attitude for online shopping during the pandemic, as well as newly developed scales that measured the budgetary considerations and the future behavioral intention after the COVID-19 pandemic. All scale items were measured with a five-point Likert scale, ranging from ranging from "totally disagree" to "totally agree". Additionally, descriptive questions were included in the survey to assess general online shopping behavior during the pandemic, as well as demographic questions about the respondents. To examined the proposed model (Figure 1), a causal model was developed based on the structural equation modelling (SEM) procedure in AMOS 21.

Table 1. *Scale items*

Construct	Construct items	Survey items	Source
Attitude for online shopping during the COVID-19 pandemic	AT1	During the COVID-19 period, online shopping saves me time.	Hernández et al. (2010)
	AT2	In my opinion, online shopping is a positive part of my life during the pandemic.	
	AT3	The Internet is the best place to buy products that are hard to find.	
	AT4	Using the Internet to make purchases seems like a good idea to me in this context caused by coronavirus.	
Budget consideration during the COVID-19 pandemic	BUG1	I've been paying more attention to my budget since the pandemic started.	Newly created
	BUG2	I'm looking for ways to save money on shopping.	
	BUG3	I make shopping lists and plan my purchases since the pandemic started.	
	BUG4	I've switched to less expensive products to save money.	
Future behavioral intention after the COVID-19 pandemic	BEH-INT1	I will continue to shop online even after this pandemic ends.	Newly created
	BEH-INT2	I will continue to use applications that deliver food and products to my home even after this pandemic ends.	
	BEH-INT3	When this pandemic ends, I want to resume my outings in restaurants and cafes.	

Data collection sorted 155 valid answers, however upon cleaning the database for incomplete or data errors, 131 responses were considered relevant for this research. A descriptive analysis of this study's respondents indicates that 77.1% of respondents were females, and 22.9% were male respondents. All respondents are from Romania. The age of the respondents was measured with a ratio scale and showed a range from 19 to 32, with a mean of 22.44 and a standard deviation of 3.462.

4. Data Analysis and Results

4.1. Exploratory Factor Analysis

To establish the structure of the latent variables, initially an Exploratory Factor Analysis (EFA) was developed. For this EFA analysis established in SPSS v. 21, the extraction method was Principal Component Analysis and the rotation method was Varimax with Kaiser Normalization. The results highlighted a relevant analysis, as the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.807 and Bartlett's Test of Sphericity Approx. Chi-Square (df=55) was 792.363 (sig. <0.001).

Moreover, the EFA led to the development of three factors that explained 75.367% of the variance (Table 2), and this value surpasses the threshold proposed by Hair et al. (2018). Additionally, the rotated component matrix (Table 2) confirms the factors that reflect the latent variables that will be explored in a SEM model, according to the preestablished hypotheses.

Table 2. *EFA results*

	Component		
	1	**2**	**3**
BUG1		0.850	
BUG2		0.859	
BUG3		0.853	
BUG4		0.808	
BEH-INT1			0.849
BEH-INT2			0.847
BEH-INT3			0.856
AT1	0.783		
AT2	0.859		
AT3	0.885		
AT4	0.843		
% Variance explained (total = 75.367%)	27.246 %	27.192 %	20.929 %
Eigenvalue	3.725	3.239	1.327

4.2. CFA - Measurement Model Testing

Following the EFA analysis, the paper follows research guidelines to examine the measurement model. The Confirmatory Factor Analysis was developed in AMOS v. 21, using the maximum likelihood procedure.

Overall, goodness of-fit indices of the CFA measurement model indicate excellent fit: $\chi^2 = 58.140$, $\mathrm{df} = 41, \chi^2/df = 1.418$, NFI =0.929, RFI = 0.905, TLI = 0.970, CFI = 0.978, RMSEA = 0.057, Standardized RMR = .0622. Based on these results, NFI, RFI, TLI, CFI are above the 0.9 threshold proposed by Bentler (1992).

Moreover, CFA helped in exploring the reliability, convergent and discriminant validity. Internal reliability and convergent validity were explored based on Cronbach's alpha (Table 3 with values ranging from 0.839 to 0.882), Composite Reliability (CR) (table 3 with values above the 0.7 threshold proposed by Fornell and Lacker, 1981; Bagozzi and Yi, 1988) and Average Variances Extracted (table 3 with values above the 0.5 threshold proposed by Fornell and Lacker, 1981; Bagozzi and Yi, 1988).

In confirming the discriminant validity, the correlations of the constructs were evaluated and the values of the correlations did not exceed the 0.85 level proposed by Bagozzi and Yi, 1988. Additionally, "the square root of each construct's AVE was higher than the correlations between them" (Fornell and Lacker, 1981). All these results are presented in Table 3, Table 4, and Figure 2.

Table 3. *Reliability, convergent validity and discriminant analysis*

	Cronbach's alpha	**Composite reliability (CR)**	**Average Variance Extracted (AVE)**	**BUG**	**AT**	**INT**
BUG	0.877	0.882	0.652	**0.808**		
AT	0.882	0.884	0.657	0.281	**0.811**	
BEH-INT	0.839	0.844	0.645	-0.280	0.344	**0.803**

Note: the bolded values, displayed on the principal diagonal, reflect the square root of AVE for each latent construct
Note: AT = Attitude for online shopping during the COVID-19 pandemic, BUG = Budget consideration during the COVID-19 pandemic, BEH-INT = Future behavioral intention after the COVID-19 pandemic

Table 4. *Reliability of construct items and CFA results*

Construct	Construct items	Mean	Standard Deviation	Standard Loading	Squared Multiple Correlations (SMC)
Attitude for online shopping during the COVID-19 pandemic	AT1	4.20	0.881	0.695	0.503
	AT2	4.08	0.869	0.832	0.693
	AT3	4.24	0.893	0.845	0.714
	AT4	4.26	0.941	0.860	0.739
Budget consideration during the COVID-19 pandemic	BUG1	3.25	1.055	0.861	0.742
	BUG2	3.23	1.161	0.860	0.740
	BUG3	3.09	1.173	0.767	0.588
	BUG4	2.91	1.304	0.735	0.540
Future behavioral intention after the COVID-19 pandemic	BEH-INT1	3.95	1.022	0.897	0.804
	BEH-INT2	3.75	1.179	0.722	0.522
	BEH-INT3	4.20	1.070	0.780	0.608

Note: AT = Attitude for online shopping during the COVID-19 pandemic, BUG = Budget consideration during the COVID-19 pandemic, BEH-INT = Future behavioral intention after the COVID-19 pandemic

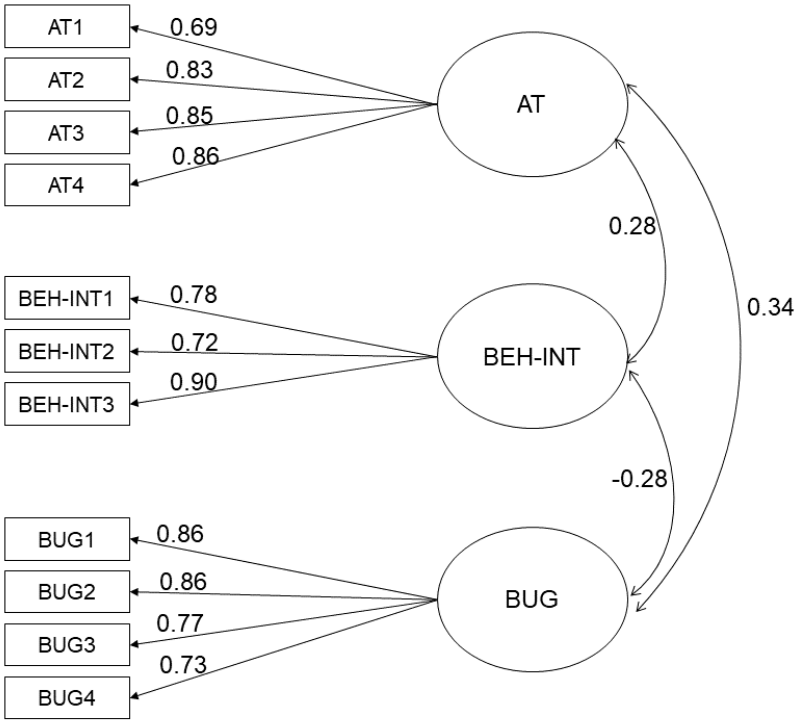


Figure 2. *CFA results*

Note: AT = Attitude for online shopping during the COVID-19 pandemic, BUG = Budget consideration during the COVID-19 pandemic, BEH-INT = Future behavioral intention after the COVID-19 pandemic

As the CFA provided excellent results, the research analysis can be extended to the structural equation model.

4.3. Structural Equation Model

The structural equation model (SEM) was tested with maximum likelihood estimation using AMOS 21.0 (Table 5) "to assess the model fitness and interrelationship among the constructs" (Hair et al., 2018). The overall model fitness indices: $\chi^2 = 58.140,\ \mathrm{df} = 41, \chi^2/df = 1.418$, NFI =0.929, RFI = 0.905, TLI = 0.970, CFI = 0.978, RMSEA = 0.057, Standardized RMR = .0622. Based on these results, NFI, RFI, TLI, CFI are above the 0.9 threshold proposed by Bentler (1992) and Hair et al. (2018).

Based on the development of the SEM analysis, all the proposed hypotheses in the model were confirmed and supported. The first hypothesis investigated the positive impact of attitude on consumers' behavioral intention to use digital shopping after the COVID-19 pandemic subsides, leading to a significant

result of β= 0.459 (p<0.001). Hence, H1 is supported. The second hypothesis was conducted to examine the impact of attitude on customers' budget considerations. H2 produced standardized regression weight of β= -0.409 (p=0.004), therefore, H2 is supported. The third hypothesis was aimed to investigate the relationship between attitude and respondents' budgetary considerations during the COVID-19 pandemic. H3 produced a standardized regression weight of β= 0.281 (p<0.001), therefore, H3 is supported.

Table 5. *SEM results*

Hypothesis	Standardized Coefficient (β)	Unstandardized Estimate	S.E.	t-value	Sig.	Result
H1: AT→ BEH_INT	0.459	0.519	0.111	4.679	***	Supported
H2: BUG→BEH_INT	-0.409	-0.375	0.089	-4.201	***	Supported
H3: AT→ BUG	0.281	0.347	0.120	2.901	**	Supported

Note: S.E.=standard error, sig. = significance level (*** reflects p<0.001 and ** reflects p<0.005)
Note: AT = Attitude for online shopping during the COVID-19 pandemic, BUG = Budget consideration during the COVID-19 pandemic, BEH-INT = Future behavioral intention after the COVID-19 pandemic

Moreover, Figure 3 illustrates that 27% in behavioral intention can be explained by attitude and consumers' budgetary considerations. Thus, additional factors should be considered when exploring consumers' behavioral intention to continue to use online shopping and digital apps as part of their behavioral patterns after the pandemic subsides.

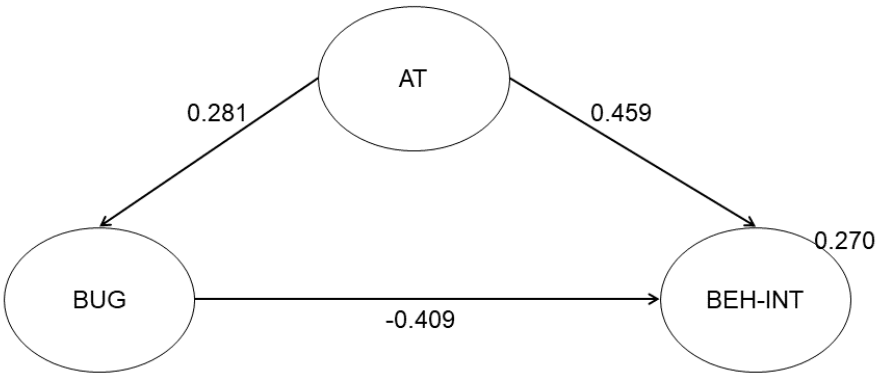
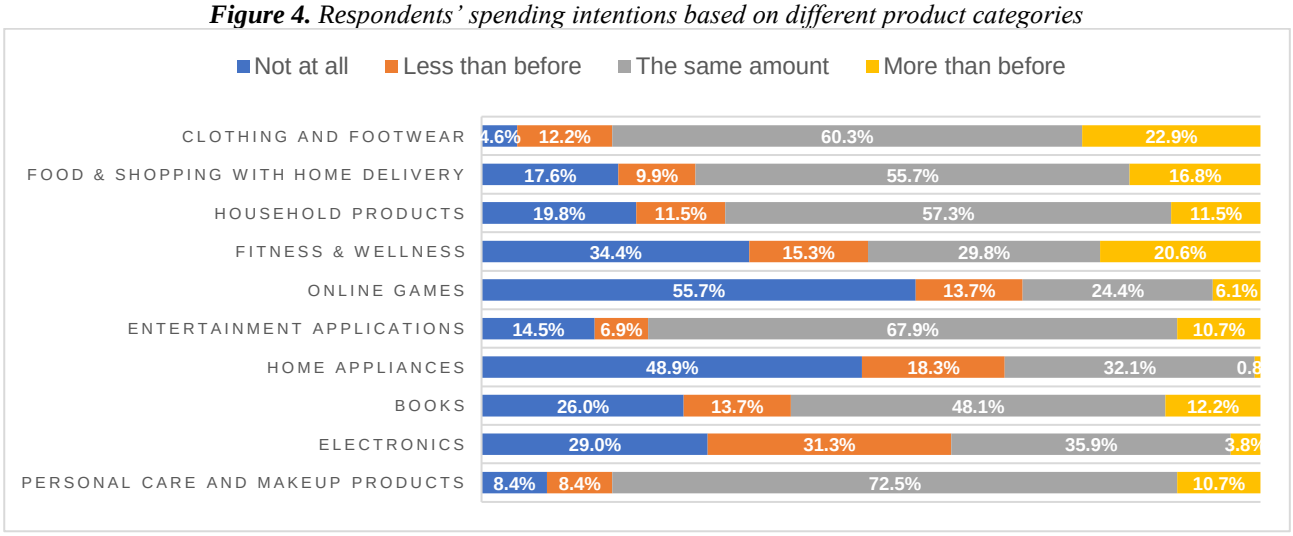


Figure 3. *Structural equation model results*
Note: AT = Attitude for online shopping during the COVID-19 pandemic, BUG = Budget consideration during the COVID-19 pandemic, BEH-INT = Future behavioral intention after the COVID-19 pandemic

To further understand the respondents' future behavioral intention for different product categories, this study was expanded using a descriptive statistics analysis based on the question: 'In the next month, do you expect to spend more, about the same, less or not at all for each of the following categories?'. Thus, respondents provided the following insights (Figure 4).

Figure 4. *Respondents' spending intentions based on different product categories*



Based on the evaluation of the responses, most product categories did not anticipate budget changes in the next four weeks, as respondents mentioned that they intent to spend about the same about for almost all product categories, with exception of online games, home appliances, and electronics.

Moreover, the analysis was expanded to examine the acquisition patterns of the respondents. As such, Table 6 explores two questions: 'During the pandemic, how often do you use the following acquisition methods?' (measured with a seven-point semantic differential) and 'Since the coronavirus (COVID-19) situation started, approximately how many times do you buy products online, per month?' (measured with a ratio scales for which each respondent mentioned an approximate number of monthly online acquisitions).

Table 6. *Understanding respondents' acquisition patterns*

Acquisition pattern	Minimum	Maximum	Mean	Std. Deviation
Click-and-collect	1	7	3.18	1.971
Products delivered at home mobile apps	1	7	3.79	2.257
Online orders from various sites with home delivery	1	7	5.50	1.576
Directly from the store / mall	1	7	4.11	1.820
No of monthly online acquisitions	1	20	3.64	2.793

Considering the results of Table 6 from data collected from 131 respondents, we notice that the most appreciated form of purchasing online products was by using online orders from various sites with home delivery (mean of 5.5 and a standard deviation of 1.576).

5. Discussion of the Findings and Conclusions

The COVID -19 pandemic has altered our normal social interactions, as well as our jobs, education, leisure time activities, and shopping habits. People are living differently, purchasing differently, and thinking differently in many ways, according to the Accenture report (2020). Consumers are embracing not only new technologies that promote work, research, and free time activities, but also consumption in a new and appropriate manner as consumers adapt to lockdowns for an extended period of time (Eger et al, 2021).

To educate researchers and marketing professionals on how pandemic crises affect consumers, we provide empirical events to help understand changes in consumer behavior and related outcomes. There is a growing literature on consumer behavior as it reflects the impacts of the pandemic. However, the empirical research is limited due to the novelty of the subject. As such, this paper aims to expand the range of empirical studies related to consumers' predisposition to online shopping during the pandemic.

In this paper, we examine some of the many peculiar consumer behavior trends that came to dominate the early days of the COVID-19 pandemic crisis, specifically attitude for online shopping during this pandemic, budget considerations and future behavioral intention after the COVID-19 pandemic. This study reveals a strong relationship between attitude and the behavioral intention of consumers to continue to adopt the same behavior learned during the pandemic. Additionally, measuring the influence of attitude and budgetary considerations on behavioral intention is an essential development in understanding consumers' preference and predisposition to reflect on online shopping behavior even after the COVID-19 pandemic subsides.

6. Conclusions

6.1. Theoretical Contributions

The present study builds on the results of international reports conducted during the first wave of the COVID-19 pandemic (Accenture, 2020; McKinsey, 2020a,b; KPMG, 2020; BCG, 2020) to better understand how consumer concerns about their health, job security, and the state of the economy affect their behavior. Additionally, this study adds to existing literature on consumer behavior and its changes due to the pandemic (Sheth, 2020; Laato et al., 2020; Pantano et al., 2020; Mehrolia et al., 2020; Eger et al., 2021).

Sheth (2020) proposed that "as the lockdown and social distancing disrupted the whole range of consumer behavior (ranging from problem recognition to search from information to shopping to delivery to consumption and waste disposal), it has generated several new research opportunities anchored to anchored to the real world". Therefore, this paper aims to provide an empirical background in understanding online shopping behavior of consumers during the COVID-19 pandemic. The McKinsey & Company (2020a) report anticipates a surge in e-commerce. Thus, the affecting factors of consumer behavior should be explored in this context generated by this pandemic.

As negative consequences tend to have an impact on consumers' future behavior, the findings of this empirical research found that consumers' budgetary considerations will have a negative effect on the future behavioral intention. This finding is similar to the one assessed by Tran (2021). Tran's study (2021) examined the perceived effectiveness of e-commerce platforms, economic benefits, and sustainable consumption relationship under the boundary condition of pandemic fear.

Moreover, this paper proposed scale items for two new constructs, namely: 'Budget consideration during the COVID-19 pandemic' and 'Future behavioral intention after the COVID-19 pandemic'. The proposed scale items were verified for scale reliability and could be expanded in future research.

6.2. Managerial Implications

This research indicates that managers should view the current situation caused by the pandemic as an opportunity to better understand the patterns for buying online and consumers' budgetary restrictions and consideration. Further, managers should consider the COVID-19 pandemic as a catalyst for better planning and response. Retailers and suppliers (Laato et al., 2020) must effectively pass and apply new information about customer behavior changes and changing needs, as well as incorporate these insights into consumer communication (Eger et al., 2021). They must consider not only the impact of customers' fears, but also the reasons why customers choose new shopping products.

Furthermore, organizations ought to quickly embrace digital setting to reduce their costs associated with serving and satisfying consumers (KPMG, 2020). Rather than being a source of concern, the Covid-19 pandemic tends to be a tool for demonstrating a company's ability to operate its business operations more sustainably (Tran, 2021). When switching to a digital setting or enhancing their presence on digital platforms, companies should also focus on cyber risks.

A more important aspect in this pandemic is brand differentiation, namely what a company stands for over and above profit is critical in a digital world. Especially considering consumers' predisposition for local products during the pandemic, small business should use brand differentiation as a marketing strategy and acquire new customers. For acquired and retained customers, companies could also focus on personalization. Personalization can be delivered through the point of interaction, making better use of customer data to help predict future situations and help inform decision-making.

During the coronavirus pandemic, managers could improve consumers' attitudes for online shopping with retention marketing strategies. After-sale programs, such as alterations and money-back guarantees, should be offered to assist them with online shopping, to mitigate security risks, and to reduce the ambiguity of online buying. Thus, the likelihood to continue to favor online shopping will increase the future behavioral intention of consumers.

6.3. Limitations and Future Research

This paper is subject to certain limitations.

First, the sample of the study is quite limited. For this exploratory study, a cross-sectional survey was applied on a convenience sample from Romania, with an emphasis on consumer behavior during the COVID-19 pandemic crisis. However, the limited number of responses restricts the extrapolation of the results. Thus, the proposed scales should be examined in extended studies.

Second, a study limitation is reflected in the variance of the future behavioral intention. The study found a low variance (27%) accounted for in consumers' future behavioral intention, which indicated that some important predictors may be missing.

Third, the limited number of responses should only be interpreted as preliminary data. For a more thorough study, a longitudinal research framework would provide more insights into consumers' behavior and the impact of the COVID-19 pandemic.

For future research, Sheth (2020) proposed the examination of long-lasting effects the pandemic on consumers' behavior. Therefore, we propose that additional studies are necessary to address the following research question: 'Should consumers permanently alter their consumption patterns as a result of lockdown and social distancing, or will they revert to their old habits once the global crisis is over?'

References

Accenture, 2020. *COVID-19 will permanently change consumer behaviour.* [online] Available at: https://www.accenture.com/us-en/insights/consumer-goods-services/coronavirus-consumer-behavior-research [Accessed on 11 December 2020].

Ajzen, I., 1989. *Attitude, personality, and behavior*. Milton Keynes: Open University Press.

Bagozzi, R. and Yi, Y., 1988. On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.

BCG, 2020. *How Marketers Can Win with Gen Z and Millennials Post-COVID-19* [online] Available at: https://www.bcg.com/en-za/publications/2020/how-marketers-can-win-with-gen-z-millennials-post-covid [Accessed on 11 December 2020].

Bentler, P. M., 1992. On the fit of models to covariances and methodology to the bulletin. *Psychological Bulletin*, 112(3), pp.400–404. doi:10.1037/0033-2909.112.3.400

Conner, M., Rhodes, R. E., Morris, B., McEachan, R. and Lawton, R., 2011. Changing exercise through targeting affective or cognitive attitudes. *Psychology and Health*, 26(2), pp.133–149. doi:10.1080/08870446.2011.531570

Davis, F.D., 1986. *A technology acceptance model for empirically testing new end user information systems: Theory and results.* Doctoral dissertation, MIT Sloan School of Management, Cambridge, MA.

Davis, F.D., Bagozzi, R.P. and Warshaw, P.R., 1989. User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), pp.982–1003.

Eger, L., Komárková, L., Egerová, D. and Mičík, M., 2021. The effect of COVID-19 on consumer shopping behaviour: Generational cohort perspective. *Journal of Retailing and Consumer Services*, 61, 102542.

Fornell, C. and Larcker, D., 1981. Structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(3), pp. 382-388.

Hair, J., Black, W., Babin, B., Anderson, R., 2018. *Multivariate Data Analysis.* London, UK: Cengage.

Harris, P., Dall'Olmo Riley, F., Riley, D. and Hand, C., 2017. Online and store patronage: a typology of grocery shoppers *International Journal of Retail & Distribution Management*, 45(4), pp.419–445. https:// doi.org/10.1108/IJRDM-06-2016-0103.

Hernández, B., Jiménez, J. and Martín, M. J., 2010. Customer behavior in electronic commerce: The moderating effect of e-purchasing experience. *Journal of Business Research*, 63, pp.964-971.

KPMG, 2020. *Responding to consumer trends in the new reality* [online] Available at: https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/consumers-new-reality.pdf [Accessed on 11 December 2020].

Laato, S., Islam, A.K.M.N., Farooq, A., Dhir, A., 2020. Unusual purchasing behavior during the early stages of the COVID-19 pandemic: the stimulus-organism-response approach. *Journal of Retailing and Consumer Services*, 57, 102224. doi:10.1016/j. jretconser.2020.102224.

Laato, S., Islam, N.A.K.M., Farooq, A. and Dhir, A., 2020. Unusual purchasing behavior during the early stages of the COVID-19 pandemic: the stimulus-organism-response approach. *Journal of Retailing and Consumer Services*, 57 (102224), pp.1–12. https://doi.org/10.1016/j. jretconser.2020.102224.

Lai, C., Altavilla, D., Ronconi, A. and Aceto, P., 2016. Fear of missing out (FOMO) is associated with activation of the right middle temporal gyrus during inclusion social cue. *Computers in Human Behavior*, 61, pp.516–521. https://doi.org/10.1016/j. chb.2016.03.072.

Lawton, R., Conner, M. and McEachan, R., 2009. Desire or reason: Predicting health behaviors from affective and cognitive attitudes. *Health Psychology*, 28(1), pp.56–65. 10.1037/a0013424

McKinsey & Company, 2020a. *How COVID-19 is changing consumer behavior –now and forever* [online] Available at: https://www.mckinsey.com/~/media/mckinsey/industries/retail/our%20insights/how%20covid%2019%20is%20changing%20consumer%20behavior%20now%20and%20forever/how-covid-19-is-changing-consumer-behaviornow-and-forever.pdf [Accessed on 11 December 2020].

McKinsey & Company, 2020b. *Consumer sentiment and behavior continue to reflect the uncertainty of the COVID-19 crisis.* [online] Available at: https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19 [Accessed on 11 December 2020].

Mehrolia, S., Alagarsamy, S., Solaikutty, V.M., 2020. Customers response to online food delivery services during COVID-19 outbreak using binary logistic regression. *International Journal of Consumer Studies*, 2020, pp.1–13. 10.1111/ijcs.12630

Pantano, E., Pizzi, G., Scarpi, D. and Dennis, C., 2020. Competing during a pandemic? Retailers' ups and downs during the COVID19 outbreak. *Journal of Business Research*, 116, pp.209–213. doi:10.1016/j.jbusres.2020.05.036.

Prentice, C., Chen, J., Stantic, B., 2020. Timed intervention in COVID-19 and panic buying. *Journal of Retailing and Consumer Services*, 57, 102203 https://doi.org/10.1016/j. jretconser.2020.102203.

Sheth, J., 2020. Impact of Covid-19 on consumer behavior: Will the old habits return or die*?. Journal of Business Research*, 117, pp.280-283. doi: 10.1016/j.jbusres.2020.05.059

Tran, L.T.T., 2021. Managing the effectiveness of e-commerce platforms in a pandemic. *Journal of Retailing and Consumer Services*, 58 (102287). doi: 10.1016/j.jretconser.2020.102287.

Wegmann, E., Oberst, U., Stodt, B. and Brand, M., 2017. Online-specific fear of missing out and Internet-use expectancies contribute to symptoms of Internet-communication disorder. *Addictive Behaviors Reports*, 5, pp.33–42. doi:10.1016/j. abrep.2017.04.001