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## **THE IMPACT OF THE COVID-19 PANDEMIC ON CONSUMERS' ONLINE SHOPPING BEHAVIOUR – AN EMPIRICAL MODEL**

***Abstract.** The goal of this study is to examine how the COVID-19 pandemic has affected people's internet buying habits. The research introduces a model which includes perceived benefits, attitude, and loyalty to investigate their impact on consumers' intentions to continue using online shopping. Targeting internet shoppers, an online survey was used, with a sample of 338 respondents. The research model's theorized relationships were tested using exploratory and confirmatory factor analyses, structural equation modelling, and a mediation analysis. All the proposed hypotheses were supported. Consequently, the results contribute to the understanding of online consumer behaviour, offering a new framework for establishing practical marketing strategies.*

***Keywords:** Online Consumer Behaviour, Ecommerce, Marketing Strategy.*

**JEL Classification: M31**

### **1. Introduction**

The digital revolution has had a monumental impact on customer purchasing processes and behaviours. E-commerce platforms have transformed the retail scene due to the advancement of the Internet and digital technologies. Well

before the emergence of the current COVID-19 pandemic, consumers had signalled their approval of the new digital shopping landscape. In this new online shopping setting, consumers can easily monitor prices, compare the functionality of different items, and share their opinions on their purchases. Moreover, “online shopping also saves time traveling to and from a retail store in a time-sensitive modern society time-sensitive modern society” (Hong et al., 2021).

As the COVID-19 pandemic continues to influence the world, online shopping and online food deliveries have increased in demand (Eger et al., 2021). Consumers’ shopping habits have changed during this challenging period marked by pandemic, lockdowns, and economic instability. Most notably, people’s habits have changed dramatically as a result of the lockdown (Hong et al., 2021). Customers exhibited atypical purchasing behaviour in the aftermath of the COVID-19 outbreak, such as panic shopping, resulting in a shortage of various products throughout the world (Sheth, 2020). As a result, this research hypothesizes that the coronavirus modifies customer behaviour towards utilizing online shopping during a pandemic in a more prominent manner. As consumer behaviour evolves, firms have the chance to adapt and customize the experiences of certain groups.

Consumers’ online buying behaviour has been examined in a number of study articles (Hernandez et al., 2009). However, because the majority of previous research were conducted before to the introduction of COVID-19, there is still a gap in research that should investigate the impact of this pandemic affected consumer behaviour when it comes to online purchasing. This study concentrates on investigating how the COVID-19 outbreak has affected consumer behaviour and how it has changed individual buying patterns. Retailers and marketers must assess consumers’ buying behaviour in the presence of the pandemic and beyond to execute strategies and tactics that are aimed at retaining existing customers and acquiring new ones (Eger et al., 2021). To fulfil the research goal, this paper is divided in five sections: introduction, literature review, research methodology, empirical data analysis, and discussion of the results. Certain ramifications are offered to online sellers in terms of developing appropriate business strategies to react to customers’ changes in their exhibited behaviour.

## **2. Literature Review and Proposed Hypotheses**

### **2.1. Theoretical Framework based on Theory of Reasoned Action (TRA) and Technology Acceptance Model (TAM)**

Online shopping has been the topic of many studies (Wang et al., 2019; McLean et al., 2020). In examining consumers’ attitudes and purchase intentions in online shopping frameworks, two of the most popular theoretical perspectives are theory of reasoned action (TRA) and technology acceptance model (TAM) (Wang et al., 2019; McLean et al., 2020).

Ajzen and Fishbein’s (1980) foundational Theory of Reasoned Action (TRA) addresses the psychological cognitive processes associated with consumer

decision-making processes. It has mostly been used to anticipate actions and propensity to behave in a certain way based on a consumers' attitudes (Lee and Chow, 2020). In other words, the theory of reasoned action (TRA) describes the link between attitude, actions, and actual behaviours, implying that individuals are rational and capable of processing decision-making data (Wang et al., 2019). Theory of reasoned action (TRA) provided the conceptual premises of technology acceptance model (TAM). TAM is one of the most widely used models for predicting technology acceptance, as seen by the numerous papers that have used it in diverse research contexts (McLean et al., 2020). In the purchasing decision-making process, consumers assess the net benefits (or trade-off) arising from the purchasing of a product or service. As per prospect theory, consumers develop their buying decisions on the basis of the prospective worth of losses and gains rather than the result after iteratively appraising an acquisition in terms of gains and losses (McLean et al., 2020).

These theories provide a framework for understanding consumer behaviour in online settings, other than the traditional method of segmenting consumers based on demographic criteria (Pham et al., 2020). Considering the premises of TAM and TRA, this paper expands the conceptual ramifications of these theories. In the present investigation, the focal point will be on a set of perceived benefits impacting Romanian consumers' online buying behaviour and their continuance intention towards online shopping, particularly during the COVID-19 outbreak.

## **2.2. Predictors of Purchasing Intention in an Online Shopping Setting during the COVID-19 Pandemic**

During the COVID-19 pandemic, people were compelled to stay inside their houses due to state-wide lockdowns (Mehroliya et al., 2020; Koch et al., 2020). Due to these restrictions, many consumers opted to buy food from food delivery apps and engage in online shopping. In certain cases, local authorities encouraged online shopping to help stop the disease from spreading (Mehroliya et al., 2020). In this pandemic context, it can be asserted that consumers evaluated the gains and losses associated with online shopping. Lee (2020) suggest that perceived benefits represent "the perceived net gains associated with the products or services acquired". Therefore, customers develop their acquisition decisions by comparing the gains/benefits and losses associated with online shopping during a pandemic.

In marketing, the notion of 'perceived benefit' is widely used to describe reasons for adopting certain behaviours or engaging in certain activities. Customers' experiences when engaging in shopping online are thought to be influenced by the many benefits that they may perceive, because such benefits have not been fully represented in a traditional shopping experience (Pham et al., 2020). Using online shopping, consumers perceive specific benefits associated with free delivery and promotional incentives (Hong et al., 2021). Price reductions are frequently used as marketing strategies in online shopping. Additionally, clients are more inclined to utilize online shopping services if they feel they can avoid

congestion, delays, and save time (Hong et al., 2021; Lee 2020; Cho et al., 2019). Liu et al. (2012) described four main categories of perceived benefits: “shopping convenience; product selection; ease / comfort of shopping; and hedonic / enjoyment”. During the COVID-19 epidemic, we assume that perceived benefits represent significant drivers of e-commerce transactions (Koch et al., 2020).

Following this assessment of perceived benefits, another key construct in online shopping is the attitude of consumers. Customers’ internal appraisal of brands or certain platforms is referred to as attitude. Attitude reflects a traditional variable in marketing that is used to analyse and forecast consumers’ brand decisions (Wang et al., 2020). For a more specific definition, attitude refers to “a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object” (Lee et al., 2020). During a pandemic, the attitude towards online shopping is important to examine from various angles. Prior research investigating perceived benefits found that benefits are positively correlated with a consumer’s attitude (Hong et al., 2021; Lee, 2020; Liu et al., 2012; Cho et al., 2019). As a result, the following assumption is offered:

*H1: Perceived benefits of online shopping during the COVID-19 pandemic will have a positive and direct effect on consumers’ attitudes.*

For our proposed model, the key dependent variable is the intention to continue to use online shopping during the COVID-19 pandemic. According to Ajzen and Fishbein (1980) intentions: “capture the motivational factors that influence behaviour” and they reflect “how hard people are willing to try, of how much of an effort they are planning to exert in order to perform the behaviour.” As a consumer will exhibit a more favourable attitude toward a specific behaviour, that particular consumer will display a greater behavioural intention towards a specific behaviour (Ajzen and Fishbein, 1980). As per Liu et al. (2012), consumers’ desire to purchase from an online store is influenced by their attitude regarding the online business. Moreover, various authors have shown that a favourable attitude for a particular marketing offering (whether an actual product or engaging in online shopping) can lead to higher levels of purchase intentions (Hong et al. 2021; Lee et al., 2020; Wang et al., 2019; Lee and Chow, 2020; Cho et al., 2019). This statement is even more important for e-commerce companies operating online during a pandemic.

Another important predictor of consumers’ purchase intention is loyalty. Oliver (1999) defined customer loyalty as “a deeply held commitment to re-buy or re-patronise a preferred product/service consistently in the future, thereby causing repetitive same brand or same brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour”. In online shopping, Kim and Niehm (2009) mentioned that e-loyalty “refers to consumers’ cognitive, affective, and behavioural reactions and favourable attitudes toward the site and its brands that results in repeat buying and patronage behaviours”. To

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preserve a strategic advantage in the long run, e-commerce enterprises must properly grasp customer activity (Koch et al., 2020).

According to McLean et al. (2020), loyal consumers are frequently prepared to spend more, have a lower predisposition to migrate towards other competing brands, and have stronger buy intentions to continue to use the same online vendor. Additionally, consumers are aware that the online environment offers marketers the opportunity to record every information related to their activity on a specific site or online access process. The opportunity to learn new details about each customer enables companies to advance their loyalty programmes. According to the premises of theory of reasoned action (TRA), behaviour may be anticipated by intentions that are directly related to that behaviour (in terms of action, goal, and circumstance) (Ajzen and Fishbein, 1980). Based on these theoretical aspects, we propose the following hypotheses:

*H2: Consumers' attitude for online shopping during the COVID-19 pandemic will have a positive and direct effect on consumers' loyalty.*

*H3: Consumers' attitude for online shopping during the COVID-19 pandemic will have a positive and direct effect on consumers purchase intention.*

*H4: Consumers' loyalty will have a positive and direct effect on consumers purchase intention to continue to use online shopping during the COVID-19 pandemic.*



**Figure 1. Model hypotheses**

Considering the current proposed framework of our model, we can examine consumers' loyalty as a mediator in the relationship between attitude and intention to continue to use online shopping. Previous research tried to expand on the frameworks they offered in order to provide more information about the interrelationships between consumers' perspectives (Koch et al., 2020). Thus, we propose the following additional hypothesis, meant to expand the proposed model:

*H5: Loyalty partially mediates the relationship between consumers' attitudes and their intention to continue using online shopping in the future.*

### 3. Research Methodology

#### 3.1. Instrument Development

This study aimed to explore the impact of the COVID-19 pandemic on consumers' online shopping behaviours. Thus, the variables included in the research instrument reflected the hypotheses described in the literature review. The survey was based on the main latent variables explained in the literature review, namely attitude (AT), loyalty (LOY), behavioural intention (INT), and perceived benefits (PB) of online shopping. The survey's questions were developed based on items from existing literature (measured with five-point Likert scales), to highlight a valuable research instrument (Table 1). Nonetheless, the survey items were slightly adjusted to reflect the context of online shopping during the pandemic. Table 1 reflects the survey items and the reference sources for each variable.

**Table 1. Survey items**

Constructs	Survey Items	Sources
AT1	"Overall, I feel favourable towards online shopping, during the COVID-19 period."	Hernandez et al. (2009); McLean et al. (2020)
AT2	"Using online shopping is a good idea 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."	
LOY1	"For me, online shopping is the best alternative during this pandemic period."	Zeithaml et al. (1996); McLean et al. (2020)
LOY2	"I will shop online regularly even after the pandemic."	
LOY3	"The Internet encourages me to shop repeatedly during a pandemic."	
LOY4	"I would recommend online shopping to my friends, during this COVID-19 pandemic."	
PB1	"I have access to a large selection of products from home."	Mehroliia et al. (2020)
PB2	"I prefer online shopping during the pandemic because I don't have to leave my house."	
PB3	"I can get useful product information online."	
PB4	"With online shopping, I can save time."	
INT1	"I intend to continue to buy products online."	Hernandez et al. (2009); Wang et al. (2019)
INT2	"I am very likely to purchase a product online, in the near future."	
INT3	"The Internet is likely to be the medium I will use for online shopping even after the pandemic."	

### 3.2. Data Collection and Sample Profile

A cross-sectional online survey was used on a convenience sample for this empirical study that explored the impact of the pandemic on consumer behaviour. This data collection approach is a legitimate technique used in most studies. Respondents were asked to complete an online survey and explain their own purchasing habits during the coronavirus outbreak. Especially during a lockdown, an online-based survey is a viable option for data collection to safeguard respondents and researchers. The questionnaire was focused on individuals who had made an online purchase, using comparable processes indicated by Pham et al. (2020) and Mehroliia et al. (2020). Only customers who have purchased products or services online were included in this study, after a screening question was applied to identify eligible responses. The target population of this study was consumers from Romania who are 18 years old and older. Initially, 372 responses were collected. During the data screening process 34 responses were eliminated from the database due data inconsistencies. A final set of 338 responses was retained. The following table reflects information on the sample characteristics.

**Table 2. Sample characteristics**

Variable	Survey items	Percentage
Sex of respondents	Female	73.4%
	Male	26.6%
Monthly household income	Prefer not to respond	17.8%
	Less than 1.000 Euro/month	21.6%
	1.001-1.600 Euro/month	20.1%
	1.601-2.200 Euro/month	19.2%
	2201-2800 Euro/month	13.6%
	More than 2801 Euro/month	7.7%
Residency	Urban environment	70.7%
	Rural environment	29.3%

In addition to these demographic elements, the respondents were asked to mention their age, based on a ratio scale. As such, the respondents' age ranged from 18 to 32 years old, with a mean of 21.83 and a standard deviation of 3.383. Another ratio scale asked respondents to mention the number of online purchases (per month) and the results showed a minimum of one monthly online acquisition, and a maximum of 20 monthly acquisitions, recording a mean of 3.53 and a standard deviation of 2.795. Additionally, the survey examined the methods used by the respondents used for ordering their products during the pandemic: orders from multiple e-stores with home delivery (ranked first), items delivered at home based on online-food delivery apps (ranked second), and click-and-collect (ranked third) for other types of products. In a cross-examination of respondents based on their sex, we found that female respondents tend to use online shopping for

ordering apparel items (clothing, shoes, and accessories), whereas male respondents use online shopping platforms for ordering food.

## 4. Empirical Analysis and Discussion of the Results

### 4.1. Exploratory Factor Analysis Results

The initial phase in the data analysis was represented by an EFA. An Exploratory Factor Analysis (EFA) was used to define the composition of the latent variables. In SPSS version 21, the EFA implied the Maximum Likelihood extraction method, with a Promax rotation method (Hair et al., 2010). The EFA reflected the following indicators: a Kaiser-Meyer-Olkin Measure of Sampling Adequacy of 0.888 and Bartlett's Test of Sphericity Approx. Chi-Square (df=51) was 144.797 (sig. 0.001). The results of these tests indicate a meaningful analysis. Furthermore, the EFA resulted in the formation of four factors that explained 72.938 percent of the variation (Table 3), (higher than the criteria proposed by Hair et al., 2010). The EFA is relevant to the current dataset.

**Table 3. Results of the exploratory factor analysis**

Items	Resulted Factors			
	1	2	3	4
AT1	0.791			
AT2	0.829			
AT3	0.709			
AT4	0.764			
LOY1		0.765		
LOY2		0.750		
LOY3		0.723		
LOY4		0.855		
PB1			0.797	
PB2			0.842	
PB3			0.660	
PB4			0.653	
INT1				0.760
INT2				0.830
INT3				0.723

### 4.2. Confirmatory Factor Analysis Results

After the development and completion of the exploratory factor analysis, the study continued with the examination of the measurement model. Using the maximum likelihood approach, the confirmatory factor analysis was assessed in AMOS v.21. Initially, the CFA was monitored for key relevancy issues, such as goodness-of-fit indicators and standardized estimates higher than the 0.5 (as



recommended by Hair et al., 2010). Upon inspection, one of the items was lower than this level, as the survey item for LOY3 (“The Internet encourages me to shop repeatedly during a pandemic.”). Thus, this item was removed from the confirmatory factor analysis and then the CFA was reapplied.

The second application of the CFA was examined based on its relevancy and the goodness-of-fit indicators proposed by Hair et al. (2010):  $\chi^2 = 195.207$  (p – value < 0.001),  $df = 66, \chi^2/df = 2.958$ , NFI=0.926 (>0.90), TLI=0.930(>0.90), CFI=0.948 (>0.90), GFI=0.926 (>0.90), RMSEA = 0.076 (<0.08). Thus, the model fit indices suggested that the measurement model was well-fitted to the dataset of this study.

Furthermore, the CFA was analysed based on reliability of the scale items, convergent validity, and overall discriminant validity. The results for these analyses are presented in Tables 4 and 5. Considering the results in table 4, Cronbach’s alpha coefficient values for each construct exceeded the minimum cut-off value of 0.50 (Hair et al., 2010), since the lowest value registered for this coefficient was 0.833. Considering the premises for convergent analysis, we explored composite reliability indices (CR) and average variance extracted (AVE) values. The lowest cut-off values for CR indices and AVE values were 0.70 and 0.50, respectively (Hair et al., 2010), and these conditions were met because the lowest level registered for CR was 0.832, and the lowest AVE value was 0.609.

Further, the values showcasing AVE were the basis for the square roots of AVE, which qualified as the premise for exploring discriminant analysis. As such, the square roots of AVE values were larger than the correlations between each two components, implying discriminant validity of the observations included in this analysis (Hair et al., 2010). Thus, all the conditions for the CFA were met.

To further examine the data, the concept of common method bias was explored. To minimize the effect of common method variance (CMV), a range of ex-ante measures were adopted in the questionnaire (Podsakoff et al., 2003). More specifically, the questionnaire was divided in multiple sections to aid with survey completion. Additionally, common method bias was also tested based on Harman’s test (Podsakoff et al., 2003). Per the results, based on the Extraction Sums of Squared Loadings, an individual extracted component explained just 40.38% of the variance, which is less than the proposed limit of 50%. (Podsakoff et al., 2003). As a result, this finding showed that one factor could not explain for the majority of variance by itself. Therefore, common method bias is not an issue in the dataset. Based on these assessments, the next step in the data analysis was a SEM.

**Table 4. Results of the confirmatory factor analysis**

Latent variables and items	Mean	Std. Deviation	Standardized Estimate	p-value
LOY1	3.902	0.905	0.914	***
LOY2	3.852	0.876	0.783	***
LOY4	3.749	0.804	0.726	***

<b>INT1</b>	4.071	0.779	0.839	***
<b>INT2</b>	4.154	0.786	0.747	***
<b>INT3</b>	3.964	0.850	0.78	***
<b>PB1</b>	4.228	0.758	0.814	***
<b>PB2</b>	4.003	0.887	0.752	***
<b>PB3</b>	4.121	0.815	0.827	***
<b>PB4</b>	4.237	0.772	0.725	***
<b>AT1</b>	4.098	0.891	0.726	***
<b>AT2</b>	4.225	0.897	0.783	***
<b>AT3</b>	3.991	0.853	0.845	***
<b>AT4</b>	4.186	0.880	0.827	***

Note: \*\*\* indicates a level of significance < 0.001.

**Table 5. Reliability, convergent validity and discriminant analysis**

Constructs	Cronbach's $\alpha$	CR	AVE	PB	LOY	INT	AT
PB	0.848	0.862	0.609	<b>0.781</b>			
LOY	0.851	0.851	0.659	0.450	<b>0.811</b>		
INT	0.833	0.832	0.623	0.585	0.669	<b>0.790</b>	
AT	0.866	0.874	0.635	0.599	0.568	0.549	<b>0.797</b>

Note: The bolded values displayed on the diagonal reflect the square-root of AVE. Off-diagonal values reflect the pairwise correlations between the constructs.

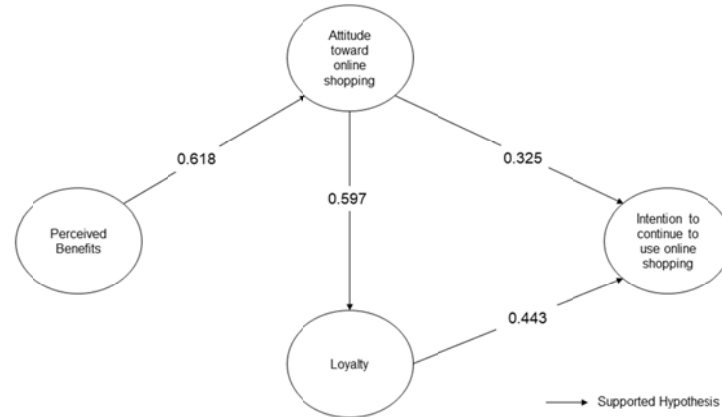
#### 4.3. Hypothesis Testing using Structural Equation Modelling and Discussion of Results

For the validation of the model's hypotheses, we developed a structural equation model. Hair et al. (2010) described a SEM as an opportunity "to assess the model fitness and interrelationship among the constructs". For this data analysis technique, the model was developed based on the maximum likelihood estimation using AMOS 21.0. The relevancy of the model was assessed based on relevant indicators higher than the recommended threshold of 0.9 (Collier, 2020). As such, for the applied model the following indicators of model fit were calculated:  $\chi^2 = 205.108$ ,  $df = 68$ ,  $NFI = 0.923$ ,  $TLI = 0.928$ ,  $CFI = 0.946$ ,  $GFI = 0.923$ ,  $RMSEA = 0.077$ . Considering these results, we can attest the relevancy of the proposed model (Hair et al., 2010; Collier, 2020). The findings of the structural equation model (SEM) are presented in Table 6 and Figure 2.

**Table 6. Model results**

Hypothesis & Relationship	Standardized Regression Estimates ( $\beta$ )	t-value	Sig.	Result	R <sup>2</sup>
<b>H1: PB → AT</b>	0.618	8.870	***	Supported	0.382
<b>H2: AT → LOY</b>	0.597	9.641	***	Supported	0.356
<b>H3: AT → INT</b>	0.325	4.644	***	Supported	0.473
<b>H4: LOY → INT</b>	0.443	6.251	***	Supported	

Note: \*\*\* indicates a level of significance < 0.001.



**Figure 2. SEM results of model hypotheses**

SEM (structural equation modelling) was established to examine our hypothesized connections between the four components. All four hypotheses associated with the proposed model were confirmed. Therefore, the model that examined e- shopping during the pandemic has a potential to be further examined in multiple settings.

Hypothesis 1 explored the impact of perceived benefits on attitude on consumer with regard to using e-commerce during the pandemic. H1 reflected a positive and significant result of  $\beta=0.618$  ( $p<0.001$ ). This result further enhances previous reports on this specific relationship (Hong et al., 2021; Lee, 2020; Liu et al., 2012; Cho et al., 2019). Hypothesis 2 investigated the impact of attitude for online shopping on consumers' loyalty. Again, this relationship presented a strong result of 0.597 ( $p<0.001$ ), highlighting the acceptance of H2. This favourable result supports previous studies that explored this connection (McLean et al., 2020).

Hypothesis 3 examined the effect of customers' attitude on behavioural intentions to pursue e-shopping during and after the pandemic. H3 revealed a standardized estimate of  $\beta=0.325$  ( $p<0.001$ ). Therefore, H3 is supported and offers similar perspectives as the studies of Hong et al. (2021), Lee et al. (2020), Wang et al. (2019), and Cho et al. (2019). Hypothesis 4 investigated the link between loyalty and respondents' intention to continue to use online shopping in the pandemic. H4 showcased a positive and significant result of  $\beta=0.443$  ( $p<0.001$ ), leading us to accept H4 in the context of the current model. The model explained 47.3% of the variance in consumers' intentions to continue online shopping, 38.2% of the variance in consumers' attitudes, and 35.6% of the variance in loyalty.

Considering the proposed hypotheses of our model, we can establish loyalty as a mediator for the relationship between 'Attitude toward online shopping' and 'Intention to continue using online shopping' (H5). According to suggestions developed by Collier (2020), this study used a bootstrapping approach

on 5000 samples with a 95% confidence level to evaluate indirect effects. The indirect effect value of ‘Attitude towards online shopping’ on ‘Intention to continue using online shopping’ via ‘Loyalty’ was 0.289 with a significant level of  $p < 0.001$ . Our model revealed a considerable indirect influence, which was a critical discovery in our study.

We can conclude that loyalty partially mediates the relationship between attitude for online shopping platforms and consumers’ intention to continue using such platforms in the future. This assessment is based on the significant outcomes for recorded for all connections involved in this mediation investigation (Collier, 2020). Considering this evaluation, hypothesis five is also confirmed.

**Table 7. Mediation results associated with hypothesis 5**

Relationship	Direct Effect	Total Effect	Indirect Effect	Confidence Interval		p-value
				Low	High	
Attitude → Loyalty → Intention to continue using online shopping	0.355	0.644	0.289	0.185	0.429	0.001

Note: Unstandardized coefficients reported. Bootstrap sample= 5,000.

## 5. Conclusion

### 5.1. Theoretical Contributions

The objective of this research was to understand the patterns and effects of the COVID-19 pandemic on consumer purchasing decisions. Most notably, as the popularity of online shopping has expanded due to technological advancements and the propagation of the current pandemic, researchers have increasingly focused on their attention understanding the changes of consumer behaviour. With the COVID-19 pandemic as the frame of reference, the current study added to the body of knowledge on online shopping by combining several predictors and perceptions of online shopping derived from the various existing theories. In line with the literature review, the evidence from this research ensures the validity of the postulated framework for this study. This paper adds to the current body of knowledge and has a number of theoretical ramifications.

This research adds to the subject of consumer behaviour, both in academia and in business, with a focus on online buying behaviour and adoption. From a research standpoint, our work responds to significant requests for more research into the possible causes of consumer attitudes regarding online purchasing, particularly in various contexts and countries, as recommended by previous authors (McLean et al., 2020).

Additionally, this study extends two specific theories: Theory of Reasoned Action (TRA) and Technology Acceptance Model (TAM). Based on the confirmation of all the hypotheses, TRA and TAM are complementary in assessing consumers’ views regarding online shopping during the COVID-19 pandemic. This

research corroborates previous empirical evidence (Lee and Chow, 2020; McLean et al., 2020; Wang et al., 2019) which describes the psychological mental processes in consumers' decision-making processes.

Our scientific findings are also in accordance with earlier study results, and they serve to fill in gaps that have previously been found. This study has provided a significant contribution to improving and expanding our knowledge of the key concepts associated with the proposed model. As described in the literature review, the notion of 'perceived benefits' is widely used to describe why people execute certain behaviours or engage in certain actions. Benefit perceptions are positively connected with consumers' attitude, according to previous studies (McLean et al., 2020). This study supports previous research on this relationship. More and more, customers are considering switching to internet shopping after understanding the ease and security of delivery services, store pick-up options, and contactless interactions (Eger et al., 2021). Furthermore, consumers' intentions to purchase offerings in an online setting are impacted by their attitudes, consistent with the premises of the TRA (Ajzen and Fishbein, 1980). According to multiple studies, a favourable attitude regarding online purchasing results in a greater inclination and intention to shop online (Lee and Chow, 2020).

This research also contributes to general knowledge of the progression of loyalty and intentions in the frame of reference of the COVID-19 pandemic. Moreover, this study shows consistency with prior reports on the relationship between loyalty and intention to continue using online shopping even after the pandemic (Hwang and Choi, 2020). To engage customers with online shopping, managers should focus on providing loyalty programs and incentive programs that encourage consumers in e-commerce.

The expansion of this study based on a mediation test attests to another theoretical contribution of this work. The outcomes of this empirical study add to our understanding of loyalty as a partial mediator between attitude for online shopping platforms and consumers' intention to continue using such platforms in the future.

## **5.2. Practical Implications**

The results of this study reflect certain managerial implications. Considering the findings, managers should consider the pandemic as a chance to gain new perspectives on consumer behaviour and focus on increasing the perceived benefits to form favourable attitudes that will further lead to future intentions to purchase items in an online setting and generate higher levels of loyalty. In this setting, managers will be able to switch their focus on developing customer retention and expansion, instead of the expensive strategy of customer acquisition. This approach is expected to assist businesses in earning brand referrals and adding value to their offerings that are sold in online settings.

The outcomes of this research can help managers adapt their marketing strategies and initiatives to meet long-term goals, even in a pandemic. In terms of

an online marketing strategy, managers can also establish the COVID-19 pandemic as a foundation for efficient coordination of marketing efforts. Online retail companies must communicate effectively and utilize new knowledge about the evolving customer behaviour exhibited by targeted audiences and integrate this knowledge in marketing communications (Eger et al., 2021). In a pandemic frame of reference, retailers should factor in consumers' anxieties and fears while shopping online. Considering these research findings, perceived benefits of online shopping have a significant impact on customer attitudes. Thus, managers should monitor these sources of benefits because they represent important determinants of attitudes and will further lead to higher intentions to continue using online platforms for different acquisitions. Moreover, customer loyalty is among the most key determinants of e-commerce success, and it has been shown to have a direct impact on sales (Kim and Niehm, 2009).

### **5.3. Limitations of the Study and Future Research Opportunities**

As with any research, there are certain constraints associated with this study. First, the survey's sample size is limited. A cross-sectional survey was conducted on a convenience sample of Romanians, with a focus on consumers' online shopping behaviour during the COVID-19 pandemic. However, due to the small number of respondents, generalization of the results is challenging. As a result, more research into the recommended constructs of this model is required and the conclusions of this study would most likely be strengthened and validated by more research in different nations. Additionally, a longitudinal research approach would offer new understandings of consumer behaviour and the effects of the COVID-19 epidemic for a more comprehensive investigation.

Moreover, future research may investigate additional constructs, i.e., customer satisfaction, commitment, or impulse purchases, to provide more productive explanations of the links between them in a more complex model that explores the impact of the pandemic on consumer behaviour. The current study could also be extrapolated in research focused on user-generated content in online shopping systems, based on web mining and sentiment analysis (Smeureanu and Bucur, 2012).

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