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Online Shopping in Relationship with Perception, Attitude, and Subjective Norm during COVID-19 Outbreak: The Case of Vietnam

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Abstract: People all across the world, especially in Vietnam, have been motivated to make online purchases since the COVID-19 pandemic, which started in early 2020. Despite the problematic developments of the COVID-19 pandemic throughout the 2020–2021 period, Vietnam has experienced a considerable increase in e-commerce, both in terms of users and revenue, contributing considerably to national economic growth. The purpose of this study is to examine how COVID-19 affects Vietnamese customers' online purchasing decisions. We conducted a survey of 638 Vietnamese internet shoppers for this, and the results were analyzed using SPSS. The results show that attitudes, perceived ease of use, perceived usefulness, and subjective norms all positively and significantly impact customer purchase intention. The desire to make an online purchase, however, is negatively and negligibly impacted by perceived risk. Online purchasing behavior is positively influenced by the intention to buy online. The perceived risk of the COVID-19, in particular, significantly modifies the relationship between perceived usefulness and perceived usability and online shopping intention, but only marginally modifies the relationship between attitude, subjective norms, and perceived risk and online purchase intention. Using a combined Theory of Acceptance Model (TAM) and Theory of Planned Behaviors (TPB) model with COVID-19 as an external model variable, the study adds to the body of knowledge by providing empirical findings.

Keywords: online shopping; consumer; COVID-19 pandemic; perception; attitude; subjective norm; technology acceptance model (TAM); theory of planned behaviors (TPB)

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1. Introduction

The emergence of internet technology has positively changed our daily lives and routines, in which online shopping has emerged as one of the most popular internet applications and has been widely accepted as a way to purchase goods and services. This is a simple answer for modern hectic living [1], especially during the COVID-19 pandemic. Consumers indicated their approval of the internet buying environment even before the pandemic, in which they had greater power and influence than ever before. Due to widespread internet usage, online shopping has seen steady expansion on a global scale and increased consumer acceptance in recent years. Global retail e-commerce sales increased to $3.354 trillion in 2019 due to the ongoing expansion of e-commerce, which is expected to have occurred at a rate of about 21% per year between 2014 and 2019 [2].

Since the pandemic erupted, online shopping saw "growth strongly". The COVID-19 outbreak, which originated in Wuhan City, China, has spread to almost all countries and territories [3]. The worldwide COVID-19 pandemic is more than just a health emergency; it also gravely disrupts human lives, global economic activity, and numerous facets of society. This pandemic has severely affected every life of consumers, consumers' buying behavior, and dramatically changed how businesses operate [4,5]. The COVID-19 situation has made the already massive global trend of internet commerce even more significant. As lockdown and social distancing are being implemented in many countries, consumers'

freedom of shopping choices and mobility is restricted and localized at home. Today, the internet and new digital technologies are widely used for a variety of daily tasks, including searching, conversing, and even placing online orders for products [6]. Consumer shopping behavior shifts toward minimizing purchases at brick-and-mortar stores and increasing the frequency of online purchases to avoid crowd contact and limit the spread of the disease [7]. Businesses and consumers "went digital" more and more as they offered and bought more products online, boosting e-proportion commerce of global retail trade from 14% in 2019 to over 17% in 2020 [2].

Vietnam has witnessed favorable developments in internet shopping thanks to both customers and businesses coming online, despite the COVID-19 pandemic. Since the COVID-19 pandemic started (early 2020), the Vietnamese government has implemented significant measures, including social isolation and promoting online purchasing to avoid crowds and social exposure, as well as the call to leave the house only in the most essential instances. As a result, Vietnam has continuously seen good growth in terms of the number of online consumers and the value of their transactions. Vietnam's e-commerce sales hit $11.8 billion in 2020, rising 18% from the previous year and accounting for 5.5% of all retail sales, according to a study by the Vietnam E-commerce and Digital Economy Agency published by the Ministry of Industry and Trade [8]. Vietnam is the only nation in Southeast Asia to see double-digit sector growth during COVID-19. According to data from the E-commerce White Book 2021 published by the Vietnam E-commerce and Digital Economy Agency [8], there were 49.3 million online shoppers in 2020, an increase from the 77% in 2019. Online purchases grew in value from $229 in 2019 to $240 in 2020. This year, there has been a 150% increase in online buying traffic in Vietnam, with 3.5 million daily visitors to e-commerce sites. Currently, 70% of all e-commerce transactions take place in Vietnam's two major cities, Hanoi and Ho Chi Minh City. In particular, 74% of online consumers made purchases using websites and e-commerce platforms, while 33% did so through forums and social media. In 2019, 52% of sales were made through e-commerce platforms, while 57% were made through social media.

It is evident that the pandemic may have had long-lasting effects on consumer culture, may have changed the market structure for the post-pandemic period, affected consumer purchasing decisions, and may have even resulted in the development of new, real, and long-lasting purchasing habits and behaviors. Understanding the trends and impacts of the COVID-19 pandemic on consumer purchasing habits is essential, as is learning how to better appreciate the impact of COVID-19 on consumers [7]. To further understand how consumer behavior and decision-making are impacted by perceptions of pandemic risk, more study is needed [9].

The majority of current research on consumer responses to COVID-19 pandemics focuses on three themes: panic purchasing, consumer expenditure, and consumer consumption [10]. Recent literature reviews on consumers' online buying habits in the wake of the COVID-19 emergency have been undertaken in industrialized nations or in regions where internet shopping has grown significantly after the COVID-19 incident [11]. Meanwhile, the same is not unsuitable for developing countries, including Vietnam. Additionally, it is yet unclear how this pandemic may affect consumers' attitudes toward internet buying. As a result, the goal of this study is to develop and reinforce the theory of consumer behavior as it relates to online buying during COVID-19. To understand the user's behavior toward online purchasing, the model put forward in this research integrates the TAM and TPB with perceived risk associated to online shopping. Furthermore, to reflect the perceived risk of COVID-19 on online consumer behavior, the perceived risk of COVID-19 variable is included in the research model as the moderator variable. Additionally, the aim of this research is to explore the correlation among online shopping with perception, attitude, and subjective norms in the context of Vietnam.

The following parts of this paper include literature review and hypothesis development, research methodology, discussion, and conclusion.

2. Literature Review and Hypotheses Development

The study of consumers' online shopping behavior in the context of COVID-19 pandemic has become a critical research agenda [12]. The researchers' attention grows considerably in this area, and they try to reveal the motivation of online shopping with different models. In this field of study, the prominent theoretical foundations include the theory of reasoned action (TRA), the theory of planned behavior (TPB), and the technology acceptance model (TAM). This study will integrate the TAM and TPB for online consumer behavior in Vietnam during the COVID-19 pandemic.

TAM was initially built by a scholar named Davis in 1985 [13]. The theory of reasoned action [14] was used to clarify and forecast individual acceptance of technology. Two critical beliefs were identified to determine one's intention to use technology: perceived usefulness and perceived ease of use [15]. Moreover, numerous empirical studies have shown that the ability to predict the buyer's behavioral intention of TAM exceeds that of the TRA and TPB models [16,17]. Many studies found the extension or integration of TAM with other relevant models allows better measurement for users' intention [16]. Besides TAM, many studies also use the TPB to investigate shopping intention of online shopping consumers. TPB theory is built by Ajzen by adding the variable "behavioral perception control" to the TRA model [18]. In TPB model, consumers' intentions and perceptions of control shape user's actions, meanwhile attitudes toward behavior, subjective norms, and perceptions of behavioral control are the influencing factors of their intentions [18]. TAM and TPB have clear strengths and extensive theoretical applications to explain consumers' online shopping behaviors.

There are four major contexts that govern disrupting consumer habits in the COVID-19 pandemic, including social contexts, the implementation of new technology, rules and regulations especially related to public policy, and natural disasters and pandemics [12]. Hence, online shopping behavior was not only affected by technology and social contexts but also the COVID-19 pandemic. In Vietnam, online shopping is still in its early stages and consumers are reluctant to use the internet for their shopping because of some barriers which have not yet been clearly defined. Perceived risk is among the most influential factors that prevent consumer behavior from shopping online. Additionally, since TRA is the original model from which TPB and TAM were developed, both thus exhibit certain interference with each other. Perceived behavioral control in TPB is similar to perceived ease of use in TAM and is also similar to self-efficacy; they all refer to people's beliefs that are capable of performing a given behavior [19]. To better understand Vietnamese consumers' online shopping behavior in the specific context of COVID-19 in Vietnam, this research would combine the TAM model and the TPB model with perceived risk and impact of the COVID-19 variable that acts as a moderator variable into the research model.

The proposed model consists of the following elements: behavior intention, perceived usefulness, perceived ease of use, attitude, subjective norm, perceived risk, and the perceived risk of the COVID-19 moderator variable (Figure 1).

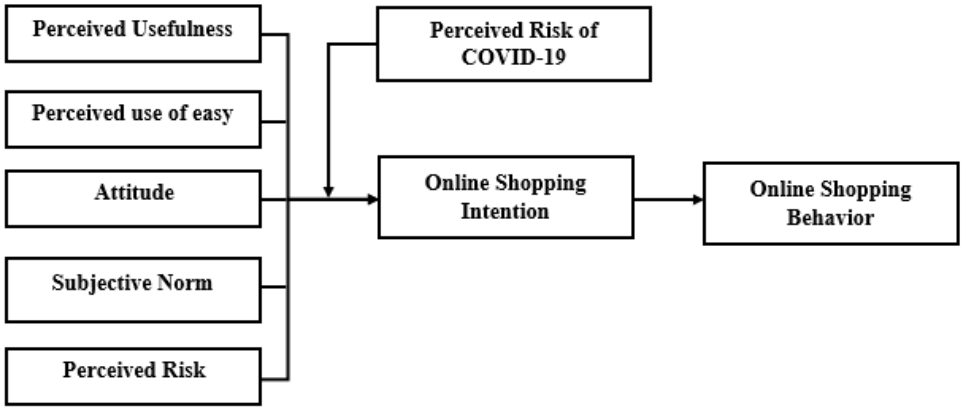

Figure 1. An integrative model to measure online shopping behavior. Source: Adapted from [19].

Online shopping intention (OSI): According to [18] intention is described as a measure of "how hard individuals are willing to try" and "how much of an effort they are preparing to expend," and it has a significant impact on both engaging in that activity and moderating the impacts of the factors that determine actual performance. Online purchase intention is the measurement of a consumer's intent to engage in a certain online purchasing behavior, and in intention-based theories that link actual conduct to behavior, online purchasing intention is the main mediating variable. In light of this, the first hypothesis of this research is caried out as follows:

H1. *Online shopping intention and online shopping behavior are significantly correlated.*

Perceived usefulness (PU): The degree to which a person thinks that using a certain technology will improve his or her ability to accomplish a task was described as perceived usefulness [11]. A large number of prior studies found perceived usefulness to be highly significant in influencing the adoption of research consumer behavior toward the Internet, which has clearly demonstrated the major impact of perceived usefulness on online purchase intention [11,12,16,17]. According to [18,19] consumers' intended online shopping activity during the COVID-19 pandemic is positively correlated with perceived utility. The following is the second hypothesis, which is based on the earlier research:

H2. *Perceived usefulness and intention to purchase online are significantly correlated.*

Perceived ease of use (PEU): The degree to which a person believes that utilizing a certain system will be less expensive in terms of effort or that the action would be free of effort is the focus of perceived ease of use, according to [11]. According to [20], perceived ease of use refers to the consumer's expectation that online purchases would be made with the least amount of work possible. According to [21], perceived ease of use has a favorable and substantial impact on consumers' online purchasing choices during the COVID-19 pandemic. The third hypothesis will thus be tested as provided below:

H3. *Perceived ease of use and online shopping intention are significantly correlated.*

Attitude (AT): According to [14], attitude is "the level to which a person has a favorable or unfavorable opinion of the in-issue conduct." Consumers' positive or negative thoughts and assessments of online purchasing are referred to as their attitude in the context of Internet shopping [22]. According to the empirical research conducted by [4], there is a significant correlation between consumer attitudes and their behavioral intention to continue the pandemic-related behaviors. Consequently, the following hypothesis will be examined:

H4. *Attitude and online shopping intention are significantly correlated.*

Subjective Norm (SN): The perceived social pressure to do or not to execute the conduct is described as a subjective norm by [14]. When discussing subjective norms, we mean the influences and results that the referent group's views have on consumers' perceptions of using online shopping [23]. Subjective norms were split into external and internal components by [22]. The tight social networks, such as those of family and friends, etc., make up the internal subjective norm, whereas the external subjective norm is influenced by outside forces such as the media, advertising, etc. External subjective norms are positively correlated with behavior intention during the COVID-19 crisis; however, internal subjective norms do not significantly affect behavior intention, as pointed out by [18].

H5. *Intention to shop online and subjective norm are significantly correlated.*

Perceived Risk (PR): Perceived risk is defined as the "subjective expectation of losses" from product (or service) purchase and use. The term "perceived risk" refers to a potential customer's knowledge of uncertainty and unfavorable effects when making purchase decisions [24]. People run a number of hazards while accessing and making purchases online. When compared to typical retail transactions, consumers believe online purchases carry a higher amount of risk since the customer cannot interact with the vendor or the underlying items immediately [20,25]. Online buyers state consumers who purchase online

have a variety of risk-related fears, such as financial risk, performance risk, time risk, psychological risk, social risk, privacy risk, and total risk [26]. According to [27], in the context of the COVD-19 pandemic, perceived risk has a detrimental and minor impact on online purchase.

H6. *Perceived risk has negative impact on online shopping intention.*

Moderator variable: The Perceived Risk of COVID-19 (IP)

The emergence of COVID-19 changed people's daily lives all around the world. To decrease social interaction and the spread of the virus, numerous countries have implemented lockdowns and social distancing measures, such as closing schools, stores, restaurants, and bars, prohibiting public activities, and promoting or demanding work from home. Many individuals are either jobless or work from home, most outside (leisure) activities are postponed, and demand for travel declines. As a result, public transportation providers opt to reduce capacity or frequency owing to poor demand. At this time, it is unclear how long social distance measurements will last. Furthermore, fresh waves of social isolation brought on by future viral waves may have stoked people's anxieties of impending disruptions and prompted behavioral reactions. According to [28], anxiety and bad connections with a certain occurrence might alter how consumers behave. When a pandemic strikes, people's decisions are influenced by their heightened health anxiety and concern about the future availability of goods for essential requirements as a result of transportation network disruptions, labor shortages, and personal emergency supplies [29]. Consumer behavior when purchasing in general, and online shopping in particular, depends on fear; the stronger the fear, the greater the shift in behavior, according to [30]. Consumers are profoundly concerned about the effects of COVID-19. In particular, in a pandemic context, the perceived risk of COVID-19 has an impact on consumer behavior, leading to a higher preference for using technology to socially isolate oneself from other people [31]. According to [32], consumers' perceptions of convenience and purchase intents while placing an online food order are positively correlated with their COVID-19 risk perception [7]. claims that the perceived risk of COVID-19 while buying online has a considerable impact on the perceived value and simplicity of online purchases and impacts the desire to make those purchases. For this reason, the authors include the COVID-19 variable of perceived risk to the model and examine how this variable influences the shift in consumer behavior during online buying. The following hypothesis has been established:

H7a. *Perceived risk of COVID-19 significantly moderates the relationship between perceived usefulness and online shopping intention.*

H7b. *Perceived risk of COVID-19 significantly moderates the relationship between perceived ease of use and online shopping intention.*

H7c. *Perceived risk of COVID-19 significantly moderates the relationship between attitude and online shopping intention.*

H7d. *Perceived risk of COVID-19 significantly moderates the relationship between subjective norm and online shopping intention.*

H7e. *Perceived risk of COVID-19 significantly moderates the relationship between perceived risk and online shopping intention.*

3. Methodology

We have conducted an empirical study using a survey created for Google's tool (Google Forms) and delivered to respondents by email, social media, and phone messaging to better understand the consumer behavior of recently launched online shopping in Vietnam. This is non-probability sampling, a convenience sample. Based on previous research, we created measuring items for the components in our hypothesized model. We used measuring questions that had already been validated in the literature to retain measure validity; however, we tailored several measures to our research domain, namely online purchasing.

As a result, the questionnaire was composed of various groups of questions, including informational questions, questions for measuring variables (independent, moderator, and dependent) using Likert's scale 5 (1 is equal to completely disagree and 5 is equivalent to completely agree, respectively). Data were collected over the course of three months, from November to January 2021. After the process of screening and removing the inappropriate answers, this research used 638 cases for data analysis. Data analyses consist of 4 steps: scale reliability test using Cronbach's Alpha, discriminant and convergence test using EFA, Pearson's correlation test, and hierarchical regression to test the hypotheses to ensure the results are reliable.

4. Results

4.1. Descriptive Statistics

Table 1 presents a profile of the respondents with some general demographic data.

Table 1. Demographic characteristics of respondents.

Variables		Frequency	Percentage (%)
Gender	Male	309	48.43
	Female	329	51.57
Age	Below 18	18	2.82%
	From 18 to less than 23	285	44.67%
	From 23 to less than 35	240	37.62%
	From 35 to less than 45	39	6.11%
	From 45 to less than 60	50	7.84%
	Above 60	6	0.94%
Living area	Hanoi	299	46.87%
	Ho Chi Minh city	266	41.69%
	Other Cities	73	11.44%
Educational attainment	College or below	60	9.40%
	Currently doing bachelor or got bachelor's degree	440	68.97%
	Postgraduate	138	21.63%
Occupation	Pupil/students	302	47.34%
	Worker, employees at private companies	165	25.86%
	Managers at private companies	38	5.96%
	Government officers	75	11.76%
	Housewives, Freelance work	53	8.31%
	Others	5	0.78%
Monthly Incomes	Less than 5 Mil VND		
	From 5 Mil VND to less than 10 Mil VND	269	42.16%
	From 10 Mil VND to less than 15 Mil VND	148	23.20%
	From 15 Mil VND to less than 20 Mil VND	108	16.93%
	From 20 Mil VND to less than 25 Mil VND	43	6.74%
	From 25 Mil VND to less than 30 Mil VND	24	3.76%
	Above 30 Mil VND	17	2.66%

Source: Authors' calculation.

According to Table 1, the number of female participants was higher than male participants and the age of survey participants is mainly from 18 to 35 (accounting for more than 80%). Most of them are students or staff working at organizations, with an educational background from university to above, and 85.3% have a monthly income of less than VND 20 million; more than 90% of the participants indicated they spend more than 3 h per day on the Internet. The majority of respondents live in Hanoi and Ho Chi Minh City, which have had the greatest percentage of electronic transactions in the country (about 70%) over the previous five years.

4.2. Validity Test

Scale reliability is tested using Cronbach's Alpha. Table 2 shows the results of the reliability test. The Cronbach's Alpha coefficient index for all variables ranges from 0.81 to 0.92, and the correlation between items in the same variable is more than 0.30. It signifies that all of the variables in the study model are trustworthy. Thus, all variables are qualified for convergence and discriminant tests using EFA.

Table 2. Summary of the reliability and validity test.

	OSI	OSB	PU	PEU	AT	SN	PR	PRC-19	Mean	Number of Items	Cronbach's Alpha
OSI	1								3.938	3	0.814
OSB	0.746 **	1							3.870	4	0.850
PU	0.609 **	0.598 **	1						4.103	6	0.905
PEU	0.637 **	0.659 **	0.630 **	1					3.946	4	0.901
AT	0.680 **	0.611 **	0.587 **	0.589 **	1				4.026	4	0.881
SN	0.388 **	0.323 **	0.248 **	0.231 **	0.344 **	1			3.632	5	0.848
PR	−0.099 *	−0.120 **	−0.107 **	−0.126 **	−0.059	0.018	1		3.747	7	0.919
PRC-19	0.409 **	0.373 **	0.369 **	0.392 **	0.355 **	0.238 **	−0.082 *	1	3.936	7	0.909

Note: Level of significance: * $p < 0.05$, ** $p < 0.001$.

For independent variables (perceived usefulness, perceived ease of use, attitude, subjective norms, perceived risk), moderator variables (the perceived risk of COVID-19), mediator variables (consumer purchase intention), and dependent variables (online shopping behavior), we execute EFA inspections in turn with Principal Component and Varimax rotation. Analysis results of the second EFA test (after removing the SN5 variable due to having a factor loading index less than 0.5) showed that the KMO coefficients are over 0.50 with Bartlett's test has sig. value at 0.000. The factor rotation matrix gives good results in terms of convergence and discriminant test between the variables in the model with a minimum factor loading of 0.73 (>0.5 as required by [33]). As a result, all variables are kept (except for SN5 variable) for Pearson and regression steps.

Table 2 reveals also that all the correlations are in the hypothesized relationship. This Pearson correlation coefficient (r) of the pairs of variables is in the range of $-1 < r < 1$ with sig. < 0.05 and medium strength, indicating that the variables are correlated but there is no evidence of multicollinearity, according to the research findings.

4.3. Hypothesis Testing

The authors used the least-squares sum technique with SPSS 20.0 to estimate the relationship between five independent variables (PU, PEU, AT, SN, and PR) and one mediator variable (OSI), as well as between the mediator variable (OSI) and the dependent variable (OSB) to test the research hypotheses. Aside from that, the authors used the Bootstrapping approach on SPSS to examine the moderating role of the perceived risk of COVID-19 on the relationship between independent variables and online shopping intention.

In the first step, multiple regression analysis is run for all independent variables with online shopping intention. Results show that independent variables can explain roughly 58.9% of the changes in online behavior intention, F's sig. < 0.05 indicates statistical meaning at 5% level. In the second regression step, we run for mediator variables (OSI) with the dependent variable (OSB), and online shopping intention can explain roughly 55.6% of the changes in behavior to purchase online which is significant. This result, however, indicates that there are still other factors affecting the behavior of shopping online that were not in this research. The results show that the F value has sig. = 0.000 < 0.05 or the model fits the data set and regression analysis is suitable (Table 3).

Table 3. Regression results for hypothesis testing.

Variables	Adj. R2	ANOVA F	Coeff	Sig./*p*-Value	VIF
PU, PEU, AT, SN, PR → BI					
PU	58.9%	183.339	0.190	0.000	1.888
PEU			0.268	0.000	1.899
AT			0.355	0.000	1.838
SN			0.158	0.000	1.141
PR			−0.027	0.295	1.021
BI → BH					
BI	55.6%	797.869	0.746	0.000	1.000

In the third step, to determine the moderating role of the perceived risk of COVID-19 between five independent variables and online shopping intention, the authors invite independent variables, consumer purchase intention and the perceived risk of COVID-19 variables. The addition of the perceived risk of the COVID-19 moderator variable adds a further 2.4% explanation chance, a significant improvement that shows the importance of this moderator variable. In total, this research model can explain roughly 61.3% of the changes in online shopping intention which is significant. Other model fit indicators such as the ANOVA F figure improved significantly after the perceived risk of COVID-19 moderator variable is added to the regression and in all case, F's sig. < 0.05 indicate statistical meaning at 5% level (Table 4).

Table 4. Moderating effect of the perceived risk of COVID-19 on the relationship between independent variables and online shopping intention.

	MR 1 Std.Beta	MR 2 Std.Beta	MR 3 Std.Beta
Predictor variables			
PU	0.190 **	0.178 **	0.183 **
PEU	0.268 **	0.251 **	0.258 **
AT	0.355 **	0.346 **	0.360 **
SN	0.158 **	0.148 **	0.146 **
PR	−0.027	−0.024	−0.011
Moderating variable: PRC-19	-	0.085 **	0.115 **
Interaction terms:			
PRC-19 * PU	0.092 *		
PRC-19 * PEU	0.083 *		
PRC-19 * AT	−0.067		
PRC-19 * SN	−0.043		
PRC-19 * PR	−0.039		
F value	90.256 **	90.256 **	90.256 **
R2	0.613	0.613	0.613
Adjusted R2	0.607	0.607	0.607
F change	90.256 **	90.256 **	90.256 **
R2 change	0.613	0.613	0.613

Note: Level of significant: * $p < 0.05$, ** $p < 0.001$.

5. Discussion

In the first step, research results show that customers' online shopping intention in Vietnam during the pandemic period is positively impacted by perceived usefulness, perceived ease of use, attitude, and subjective norms, but perceived risk does not influence online shopping intention, in which attitude variable is the strongest impact factor with a positive influence (β = 0.355). These results are the same as the findings of [26,34]. With a standardized beta of 0.268, perceived ease of use is the second most powerful factor influencing intention to purchase online. Our findings are consistent with the work of [27].

This is followed by perceived usefulness with a standardized beta of 0.190. Our work is the same as the work of [14,23,25]. Next, subjective norm with a standardized beta of 0.158. The results are in line with those of [16,18]. Finally, perceived risk does not influence online shopping intention as sig. > 0.05. This result was also found in the study of [32,35]. Thus, hypotheses H2, H3, H4, and H5 were supported, and hypothesis H6 was rejected. The findings in the second stage confirm our hypothesis H1 with sig. 0.05 and VIF 2, thus the findings are statistically significant and there is no multicollinearity issue. The results also suggest that online shopping intention has a substantial and positive impact on online buying behavior. Our findings are comparable to those of [35].

In the third step with moderation effect testing, the perceived risk of COVID-19 has significantly and positively moderated the relationship between independent variables in the model as perceived usefulness, perceived ease of use, and intention to purchase online. Hence, regression results support hypotheses 7a and 7b. In light of this, it can be concluded that the study's findings show that the COVID-19 pandemic affects consumers' online shopping habits because, during COVID-19, people are more hesitant to visit actual stores for purchases due to their fear of getting sick and would rather shop conveniently online from the comfort of their homes. Additionally, it is also conceivable to observe that the increased usage of digital media at this time encourages the rise of online shopping since customers who want to buy online are more likely to really do so. The study demonstrates that consumers prioritized their most fundamental requirements throughout the crisis, a conclusion that is consistent with those of [7,29]. Since the *p*-value for hypothesis 7c, 7d, and 7e is more than 0.05, it was determined that the perceived risk of COVID-19 had no mild impact on attitude, subjective norms, and perceived risk on the desire to purchase online.

6. Conclusions

While measuring the impact of the COVID-19 moderator variable on consumers' online shopping behavior, the study focuses on how Vietnamese consumers' intentions to purchase online have altered throughout the COVID-19 outbreak. This study comes to the conclusion that perceived usefulness, perceived ease of use, attitude, and subjective norms all positively and significantly affect customer purchase intention. However, perceived risk has not significantly influenced consumer purchase intention during the pandemic period. Between the five independent constructs and online purchasing behavior, online shopping intention acts as a mediator. The outcome has demonstrated that the perceived risk of COVID-19 modifies the association between independent factors such as perceived utility, perceived convenience of use, and inclination to purchase online. Researchers and practitioners in the fields of online retailers and marketing may learn from these research findings in a variety of ways, which will help them better understand how the disease affects consumers' online buying behavior and better plan a timely reaction in the future. In the study, the presence of an issue that has not been completely exploited is unavoidable, and this piece is no exception.

It is difficult to avoid a problem that has not been completely explored via study, and this particular issue is no exception. Since the COVID-19 outbreak was chosen as the moderator variable in this study and is an emerging worry for 2020, other possible moderator factors have temporarily been ignored. Vietnam is the only country included in this study's survey. This makes it possible to broaden surveys across countries and do follow-up research to examine differences in online purchasing intentions across economies and cultures. Last but not least, the use of convenience sampling as a limitation which may create bias and provide some directions for future studies.

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