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The 9th International Conference on Marketing and Retailing**FACTORS AFFECTING CONSUMERS' ONLINE PURCHASE
INTENTION DURING COVID-19 IN MALAYSIA**

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Abstract

The COVID-19 pandemic has made certain activities interrupted, including the shopping habit of consumers in Malaysia, from physical shopping to internet shopping. The Internet has created unlimited opportunities in several sectors, especially in the retail business. Different generations have different perspectives and issues regarding internet buying. Thus, this study seeks to investigate the extent of the factors of perceived usefulness, perceived ease of use, perceived price, perceived convenience, and perceived trust influence consumers' online purchase intention in Malaysia, looking into the function of generational differences. An exploratory study design was adopted, and convenience sampling was employed for the sampling procedure. An online survey was distributed to 385 respondents. The hypothesis and relationship between variables were tested using multiple regression analysis. The results show that all independent variables except price are significant to influence online purchase intention. Furthermore, generational differences (Millennials) pose some influence on consumers' online purchase intention. The findings of the present study contribute valuable input to the existing knowledge and practices.

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Keywords: Online purchase intention, perceived convenience, perceived ease of use, perceived trust, perceived usefulness

1. Introduction

Since December 2019, COVID-19 has affected the human respiration system. It is first detected in Wuhan, China. Coronavirus causes runny noses, sore throats, nausea, coughing, and fever. The WHO has declared this pandemic critical because of its global expansion. COVID-19 is not just a health problem but also a global pandemic that is destroying communities and economies. The COVID-19 epidemic has disrupted worldwide trade, business, education, and other activities. Because of movement control orders (MCO), COVID-19 shifts Malaysian buying habits from physical to online. Some people choose to stay at home to avoid getting infected by COVID-19.

Malaysians started buying online after the outbreak and government restrictions. They surfed and waited for a promotion before deciding to purchase. Malaysia appears to dominate regional e-shopping. Gwendolyn Lim, a partner at Bain & Co, discusses some of the survey's findings in an interview with The Edge. A total of 88 percent of Malaysia's population has now adopted a digital lifestyle, compared to 78 percent in Southeast Asia. In addition, Malaysia is 80 percent ahead of Indonesia, while Singapore has scored 79 percent. This means that nine out of ten Malaysians are expected to purchase online by the end of 2021. The internet has formed boundless chances in numerous sectors, especially in business. Since the 1990s, it has changed how individuals buy and sell and is expected to become the main method in business transactions (Doherty & Ellis-Chadwick, 2010). Today, consumers may quickly purchase and sell goods and services online. It will become a marketing term across boundaries. Online shopping or e-commerce is indeed a popular business model.

On the other hand, there was a greater risk and less trust due to difficulties in analysing the products, no visible or physical measures of product quality, or face-to-face interactions with sellers. Privacy and security issues limited the transactions (Laroche et al., 2005). Online consumers risk losing money and receiving incorrect items. Finally, products may not match online descriptions. In addition, the online purchase was different for different generations during COVID-19. Younger generations more perceived convenience, whereas older generations more perceived trust. J. Kim (2020) found that Generation X and Generation Y consumers varied in perceived ease of use, perceived usefulness, perceived trust, and perceived price. Chua and Lim (2022) also discovered that Generation Y consumers were more likely to buy online than Generation X consumers. Younger people also were more comfortable with technology and the internet, which leads to perceived ease of use. Thus, this study is meant to examine the factors affecting consumers' online purchase intention by looking into generational during COVID-19 in Malaysia.

2. Literature Review

2.1. Online Purchase Intention

Purchase intention describes how a buyer chooses a product. Customer purchase intention is predicted by-product consideration and expectation. A study by Y. Li et al. (2021) found that the pandemic has led to an increase in online purchase intention as customers seek to avoid physical stores and reduce their risk of exposure to the virus. This is supported by a study by H. Kim et al. (2022), which

found that the pandemic has led to a significant increase in online shopping as customers seek to avoid public places and reduce the risk of exposure to the virus. Another study by X. Zhang et al. (2021) found that the pandemic has led to a change in consumer behaviours, with customers increasingly turning to online shopping as they seek to reduce their risk of exposure to the virus. The study found that the pandemic has led to a shift in consumer attitudes toward online shopping, with customers becoming more accepting of this shopping method. A study by Park et al. (2022) found that the pandemic has led to an increase in the frequency of online shopping as customers seek to reduce their risk of exposure to the virus. The study also found that the pandemic has led to a change in customer buying patterns, with customers increasingly purchasing essential items such as groceries and household supplies online. Thus, the study seeks to know Malaysian internet shoppers' intentions.

2.2. Technology Acceptance Model

The Technology Acceptance Model (TAM) is a widely used framework for understanding and predicting customer adoption and use of technology. According to the TAM model, customer adoption of technology is largely driven by two key factors: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which a customer believes that using a product or service will enhance their job performance or life quality, while perceived ease of use refers to the extent to which a customer believes that a product or service is easy to use. A study by H. Kim et al. (2022) found that perceived usefulness is a significant predictor of online purchase intention among all generations, with customers who perceive a product or service to be useful being more likely to make an online purchase. J. Lee et al. (2022) found that perceived ease of use is a key factor in shaping customer attitudes towards online shopping among all generations, with customers who view online shopping as easy to use is more likely to have positive attitudes towards this shopping method and to engage in online shopping. A study by Park et al. (2021) found that perceived price is positively related to online purchase intention among all generations, with customers who perceive online shopping as being more affordable being more likely to engage in online shopping.

2.3. Perceived Usefulness

Perceived usefulness also can be defined as a consumer's trust that by using a system, task performance would increase (Davis, 1986). Radwan and Murad (2019) in their study on Jordan found that perceived usefulness is significant towards the intention of online shopping. Another previous research conducted at Ghana found that perceived usefulness is significant towards online purchase intention (Ofori & Appiah-Nimo, 2019). A study by H. Kim et al. (2022) found that perceived usefulness is a significant predictor of online purchase intention among customers of all ages, with customers who perceive a product or service to be useful being more likely to make an online purchase. Similarly, another study by M. K. Lee and Kim (2020) found that perceived usefulness plays a key role in shaping customer attitudes toward online shopping and their intention to purchase products or services online. The study found that customers who view online shopping as being useful were more likely to have positive attitudes towards online shopping and to engage in online shopping behaviours. Based on the discussion, the following hypothesis is proposed:

H1: Perceived usefulness has a significant influence on consumers' online purchase intention in Malaysia.

2.4. Perceived Ease of Use

The term "ease of use" relates to the ease with which a specific system or technology may be understood, learned, and used (Davis, 1986). Perceived ease of use also refers to how potential individuals believe the target system to be effortless to use (Surendran, 2012). Studies by H. Kim et al. (2022) found that perceived ease of use is a significant predictor of online purchase intention among customers of all ages, with customers who perceive a product or service to be easy to use being more likely to make an online purchase. Similarly, another study by M. K. Lee and Kim (2020) found that perceived ease of use plays a key role in shaping customer attitudes toward online shopping and their intention to purchase products or services online. The study found that customers who view online shopping as being easy to use were more likely to have positive attitudes towards online shopping and to engage in online shopping behaviours. On the other hand, Radwan and Murad (2019) revealed that six factors including ease of use are significant toward intention to online shopping in Jordan. In addition, a study by Trivedi and Yadav (2018) shows that security, privacy concerns, trust, and ease of use have a positive significant relationship with repurchase intention. Based on this, the following hypothesis is highlighted:

H2: Perceived ease of use has a significant influence on consumers' online purchase intention in Malaysia.

2.5. Perceived Price

A study conducted by J. Zhang and Lee (2019) found that perceived price has a negative impact on consumers' online purchase intention, with consumers being more likely to purchase a product when they perceive it as being cheaper. In a similar study, Y. K. Kim et al. (2020) found that perceived price fairness has a positive impact on consumers' online purchase intention, with consumers being more likely to purchase a product when they perceive the price as fair. Next, a study by Liu et al. (2022) investigated the role of perceived price and perceived quality in the formation of consumers' online purchase intention and found that perceived price has a stronger impact on online purchase intention than perceived quality. On the other hand, price in terms of promotion can strengthen consumers' loyalty only for consumers who are at least moderately loyal whereas it is not effective at changing non-loyal consumers' attitudes toward an online retailer (Y. Kim & Krishnan, 2019). In addition, according to Zhong and Moon (2020), the perceived price can significantly influence customer satisfaction. Consumer value could be positive when the relative evaluation of price is high. Based on this, the following hypothesis is developed:

H3: The perceived price has a significant influence on consumers' online purchase intention in Malaysia.

2.6. Perceived Convenience

Convenience is a term used in marketing theory that includes product classification. Convenience is another significant advantage consumers may have while purchasing online (Raman, 2020). An expert has identified convenience as a significant variable in the growth of e-commerce (Kiew et al., 2021). In addition, Kumar et al. (2019) in their study found that convenience is influencing online shopping behaviours among university students. Based on the results of a study by Veybitha et al. (2021) regarding the factors that influence online purchase intentions, it can be concluded that the main factors affecting online purchases are the level of security, risk, convenience, and accuracy of delivery. Based on the discussion, the following hypothesis is forwarded:

H4: Perceived convenience has a significant influence on consumers' online purchase intention in Malaysia.

2.7. Perceived Trust

X. Li and Huang (2019) found that perceived trust has a positive impact on consumers' online purchase intention, with consumers being more likely to purchase a product when they perceive the online seller as trustworthy. In another study, Y. K. Kim et al. (2020) found that perceived trust in the online seller mediates the relationship between perceived risk and online purchase intention, with consumers being more likely to purchase a product when they perceive the online seller as trustworthy and the perceived risk as low. On the other hand, a study by Wang et al. (2022) investigated the role of perceived trust and perceived security in the formation of consumers' online purchase intention and found that both perceived trust and perceived security have a positive impact on online purchase intention. The authors conclude that perceived trust and perceived security are crucial factors in the formation of consumers' online purchase intentions. According to Roszi et al. (2021), trust is very important in making online purchases. Hence, based on the discussion, it is hypothesized that:

H5: Perceived trust has a significant influence on consumers' online purchase intention in Malaysia.

2.8. Generational Differences

According to generation cohort theory, every generation cohort is unique in some manner due to the unique experiences that occurred in distinct eras (Ignatius & Hechanova, 2014). Thus, groups of persons born during the same time and going through comparable experiences will have common values, attitudes, beliefs, and expectations that will last throughout the generation's existence and will form a generational identity (Carpenter et al., 2012). Generational identity significantly impacts buying patterns and shopping behaviours in consumer settings (Lissitsa & Kol, 2016).

2.9. Baby Boomers

According to Eger et al. (2021) in their studies on the Czech Republic, Baby Boomers have a significant relationship with shopping behaviours. A study conducted by Chen et al. (2019) found that Baby Boomers are less likely to purchase products online compared to younger generations, such as

Millennials. The authors attribute this difference to differences in technology use and attitudes towards technology. M. K. Lee and Kim (2020) found that Baby Boomers are more likely to purchase products in physical stores, as they prefer to touch and try products before making a purchase. The authors also found that Baby Boomers are more likely to seek advice from friends and family before making a purchase and are more likely to make purchases based on recommendations from these sources. Another study by J. Zhang et al. (2022) investigated the impact of consumer characteristics on the adoption of online shopping and found that Baby Boomers are less likely to adopt online shopping compared to younger generations. The authors conclude that Baby Boomers have unique characteristics and behaviours when it comes to online shopping and that these characteristics play a significant role in the formation of their online purchase intentions. Hence, based on the discussion, it is hypothesized that:

H6: Baby boomers moderate the relationship between perceived usefulness and consumers' online purchase intention.

H7: Baby boomers moderate the relationship between perceived ease of use and consumers' online purchase intention.

H8: Baby boomers moderate the relationship between perceived price and consumers' online purchase intention.

H9: Baby boomers moderate the relationship between perceived convenience and consumers' online purchase intention.

H10: Baby boomers moderate the relationship between perceived trust and consumers' online purchase intention.

2.10. Generation X

Generation X, typically defined as those born between 1965 and 1980, is known for being tech-savvy and comfortable with technology. As such, they are likely to engage in online purchasing behaviours. In general, this generation values convenience and efficiency, which are two key drivers of online shopping. They are also likely to research products and compare prices online before making a purchase. A study conducted by the National Retail Federation (2020) found that Gen X was the demographic most likely to make purchases through their mobile devices. Eger et al. (2021) in their studies on the Czech Republic showed Generation X has a significant relationship with shopping behaviours. Hence, based on the discussion, it is hypothesized that:

H11: Generation X moderates the relationship between perceived usefulness and consumers' online purchase intention.

H12: Generation X moderates the relationship between perceived ease of use and consumers' online purchase intention.

H13: Generation X moderates the relationship between perceived price and consumers' online purchase intention.

H14: Generation X moderates the relationship between perceived convenience and consumers' online purchase intention.

H15: Generation X moderates the relationship between perceived trust and consumers' online purchase intention.

2.11. Generation Y/Millennials

The Internet Generation or digital natives are Generation Y. Confident, ambitious, linguistic, and goal-oriented, this generation utilises smartphone apps and Facebook to communicate (Lewy et al., 2019). They seek brands more often. Unlike Baby Boomers, they desire fast, varied shopping. Brands and shopping aspirations vary by generation. Each generation wants financial security, straightforward brand interactions, and honest marketing (National Retail Federation, 2020). Customers always prioritise great service. Online and mobile purchases are rising across generations. Each generation likes loyalty and reward schemes (Lewy et al., 2019). However, millennials are familiar with online shopping. They buy mostly inexpensive products online because they regard it as advantageous yet unsafe. The way millennial customers behave while making an online purchase is highly dependent on their demographic traits (Melović et al., 2021). Hence, based on the discussion, it is hypothesized that:

H16: Millennials moderate the relationship between perceived usefulness and consumers' online purchase intention.

H17: Millennials moderate the relationship between perceived ease of use and consumers' online purchase intention.

H18: Millennials moderate the relationship between perceived price and consumers' online purchase intention.

H19: Millennials moderate the relationship between perceived convenience and consumers' online purchase intention.

H20: Millennials moderate the relationship between perceived trust and consumers' online purchase intention.

2.12. Generation Z

Generation Z, also known as iGeneration or Centennials, are born between 1996 and 2010 and are the true digital natives (De Mooij, 2019). Consumers are less loyal to sellers and demand businesses to provide the goods. As a result, retailers are under pressure to develop new strategies for engaging and holding consumers' attention. They have greater expectations, are dissatisfied with brands, and are more concerned with the experience (Schlossberg, 2016). According to a study by Tunsakul (2020) in Thailand, he finds out that Gen Z's attitude towards online shopping had a significant impact on online shopping intention. Generation Z has grown up in a world that is highly connected and digital, and they are comfortable with technology and expect seamless online experiences (Dittmar et al., 2020). Generation Z values convenience and speed when it comes to online shopping, and they are less likely to make purchases in physical stores (Kaur et al., 2023). Generation Z is influenced by social media and the opinions of their peers when making purchasing decisions, and they also place a high value on environmental sustainability and ethical consumerism (Qiu et al., 2021). Therefore, based on the discussion, it is hypothesized that:

H21: Generation Z moderates the relationship between perceived usefulness and consumers' online purchase intention.

H22: Generation Z moderates the relationship between perceived ease of use and consumers' online purchase intention.

H23: Generation Z moderates the relationship between perceived price and consumers' online purchase intention.

H24: Generation Z moderates the relationship between perceived convenience and consumers' online purchase intention.

H25: Generation Z moderates the relationship between perceived trust and consumers' online purchase intention.

The relationship among the variables is illustrated in Figure 1 below:

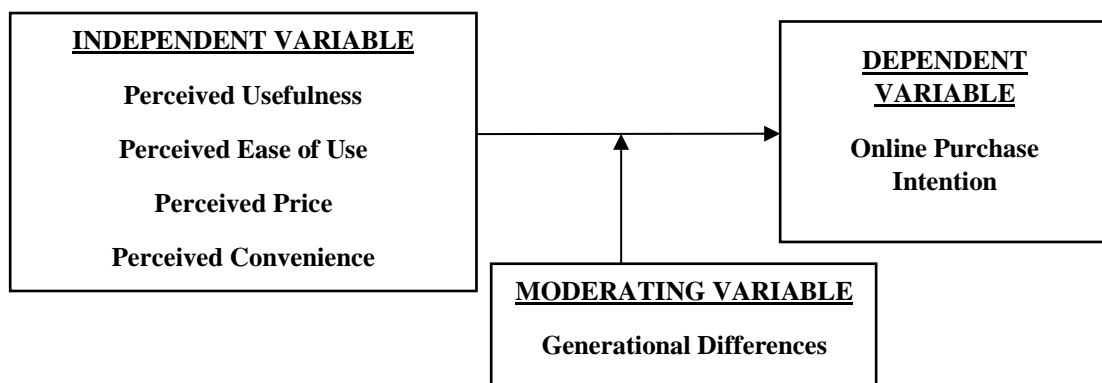


Figure 1. Research Framework

3. Research Methodology

The study used correlational research as the method of data collection. As stated by the researcher, the study focuses on consumers' online shopping behaviours in Malaysia, which requires responses to all the study's questions. The population for this research is the online shopping consumer who lives in Malaysia. Malaysia has a population of 33.45 million in 2021, 22 million of which are online shoppers. Since the researcher mentioned this survey highlights Consumers' Purchase Intention in Malaysia, the target samples only focus on Malaysian citizens. The study used non-probability sampling as a sampling technique. The researcher specifically chose convenience sampling techniques to conduct this survey. Other than that, the study used an online questionnaire survey via Google Forms. 5-Point Likert Scale was used. The study chose 385 samples since it is not difficult to obtain samples for this research because the scope of the research is on online shopping, which is prevalent nowadays, and almost everyone owns a mobile phone with the internet and engages in online shopping.

4. Findings

4.1. Respondents' Profile

Table 1. Respondents' profile

Variable	Description	Frequency	Percentage
Gender	Female	209	54.3
	Male	176	45.7
	Total	385	100
Age	24 years old and below (Gen Z)	144	37.4
	25-40 years old (Millennial)	87	22.6
	41-56 years old (Gen X)	81	21.0
	57 years old and above (Baby Boomers)	73	19.0
	Total	385	100
Marital status	Married	153	39.7
	Single	232	60.3
	Total	385	100
Employment	Private Sector	92	23.9
	Public Sector	62	16.1
	Self Employed	124	32.2
	Student	107	27.8
	Total	385	100
Frequency of online purchase	Above three times a month	125	32.5
	Once a month	99	25.7
	Three times a month	79	20.5
	Twice a month	82	21.3
	Total	385	100
Online applications Used	Alibaba	8	2.1
	Facebook	44	11.4
	Instagram	26	6.8
	Lazada	33	8.6
	Shein	15	3.9
	Shopee	200	52.0
	Zalora	19	4.9
	Tik tok	37	9.6
	Others	5	0.7

The respondents who participated in the study were asked about their gender, age, marital status, employment, the frequency of online purchases, and the online applications used. Pertaining to the gender of the respondents, 176 are male and 209 are female. Most of them were aged 24 years and below (144 respondents), followed by those aged between 25 and 40 years old (87 respondents). Others aged between 41 and 56 years old (81 respondents), and more than 57 years of age (73 respondents). Regarding marital status, most of them were single (232 respondents) and others were married (153 respondents). Concerning the occupation of the respondents, most of them were self-employed (124 respondents), students (107 respondents), working in the private sector (92 respondents), and in the public sector (62 respondents). Looking at the frequency of online purchases, most of the respondents have made online

purchases above three times a month (125 respondents), followed by those who have participated in online purchases once a month (99 respondents), those who have engaged in online purchase twice a month (82 respondents) and those who have done online purchase three times a month (79 respondents). With reference to online applications used, most of the respondents used Shopee (200 respondents), Facebook (44 respondents), TikTok, and Lazada (37 respondents and 33 respondents, respectively). Others possessed Instagram (26 respondents), Zalora (19 respondents), Shein (15 respondents), Alibaba (8 respondents), and others (5 respondents) (Table 1).

4.2. Factor Analysis of The Dependent Variable

Table 2. Results of factor analysis for the dependent variable

		Component 1
PI2. I am happy with the purchase from this website.		.697
PI3. I am satisfied with the purchase from this website.		.860
PI4. I will continue purchasing from this website in the future.		.797
PI1. I would like to purchase from this website.		.791
% Variance explained		78.62
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.831
Bartlett's Test of Sphericity	Approx. Chi-Square	1040.611
	df	6
	Sig.	.000
MSA		.776 - .894

Notes: Extraction Method: Principal Component Analysis with Varimax Rotation.

A principal component factor analysis with varimax rotation was also performed to determine the dimensionality of the dependent variable, purchase intention. There are 4 items measuring the intended variable. None of the items were removed. The unidimensional variable explained 78.62% of the variance in the model, which exceeds the recommended threshold value of 60%. The KMO value of 0.831 indicates the factor matrix allows factor analysis to be conducted. The MSA value ranging from 0.776 to 0.894 indicates that there are sufficient correlation coefficients for each item. The loadings ranging from 0.697 to 0.860 are high enough to indicate the dimensionality of the factor. The original name of the purchase intention was retained (Table 2).

4.3. Factor Analysis of Independent Variable

Table 3. Result of factor analysis for the independent variable (perceived usefulness and perceived ease of use)

	Component	
	1	2
PU4. During the lockdown, I found shopping sites and applications very useful.	.883	
PU2. During the lockdown, I found that using online shopping sites and applications allowed me to improve my purchasing efficiency.	.851	
PU3. During the lockdown, I found that using online shopping sites and applications made shopping easier.	.889	
PU1. During the lockdown, I found that using online shopping sites and applications allowed me to access the products I needed more quickly.	.837	

PEOU1. Shopping online does not require a lot of mental effort.		.753
PEOU3. It would be possible for me to shop online without the help of an expert.		.828
PEOU2. I could become skillful at online shopping.		.831
% Variance explained (80.24)		45.88 34.36
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.894
Bartlett's Test of Sphericity	Approx. Chi-Square	2104.146
	df	21
	Sig.	.000
MSA		.862-.925

Notes: Extraction Method: Principal Component Analysis with Varimax Rotation.

Table 3 presents the results of factor analysis pertaining to Perceived Usefulness and Perceived Ease of Use constructs. A principal component factor analysis with varimax rotation was also conducted to examine the factor structure of 7 items measuring the constructs. The KMO value of 0.894 denotes the suitability of the correlation matrix to be factor analysed. The MSA values range from 0.862 to 0.925. The result indicates the existence of a unidimensional construct, explaining 80.24 % of the variance in the model. The first component reflects perceived usefulness, which explains 45.88 % of the variance in the model. The loadings range from 0.837 to 0.889. The name of Perceived Usefulness remained. The second factor corresponds to perceived ease of use, which explains 34.36% of the variance in the model. Two items were removed due to high cross-loadings or loadings different from the proposed model. The loadings range from 0.753 to 0.831. The name of Perceived Ease of Use was retained.

Table 4. Results of factor analysis for the independent variable (perceived price, perceived convenience & perceived trust)

	Component		
	1	2	3
T2. I find the website is trustworthy to protect me from identity theft.	.868		
T1. The website is overall reliable to protect me from hackers.	.861		
T3. I believe the website has become secure after implementing controlling measures to avoid identity theft.	.858		
T4. The authority takes full responsibility for any type of insecurity during interaction/transaction at the website.	.764		
C3. I would be more likely to shop on the Internet if the website is easy to use.	.849		
C2. I shop online because I can reduce my efforts in travelling, parking, waiting and etc.	.837		
C4. I like to shop on the Internet because it is easy to compare many products.	.813		
C1. Shopping through the Internet makes ordering items convenient.	.799		
P1. Online shopping saves money in comparison to traditional shopping.		.886	
P3. Online shopping significantly reduces expenses per transaction in comparison to traditional shopping.		.851	
P2. Online shopping is cheaper than traditional shopping.		.819	
% variance explained (82.84)	30.01	29.31	23.51
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.892	
Bartlett's Test of Sphericity	Approx. Chi-Square	3711.920	
	df	55	
	Sig.	.000	
MSA		.847-.938	

Notes: Extraction Method: Principal Component Analysis with varimax Rotation.

Table 4 displays the results of the factor analysis of perceived trust, perceived convenience, and perceived price items. A principal component factor analysis with varimax rotation was also conducted to observe the factor structure of the 11 items pertaining to perceived trust, perceived convenience, and perceived price. The result indicates the existence of three distinct factors which explain 82.84% of the variance with each factor explaining 30.01, 29.31, and 23.51, respectively. The KMO value of 0.892 indicates that the correlation matrix among the items is sufficient for factor analysis to be conducted. The MSA values range from 0.847 to 0.938. The first factor contains the 4 items related to Perceived Trust; therefore, the name was used. The second 4 item factor concerns perceived convenience; thus, the name was kept. The third factor represents 3 items related to the perceived price; hence, the name was upheld.

4.4. Reliability and Correlation Analysis

Table 5. Results of Reliability and Correlation Analysis

No	Variables	Mean	Std Dev	1	2	3	4	5	6
1	Perceived Usefulness	4.15	.86	(.927)					
2	Perceived Ease of Use	4.00	.86	.773**	(.849)				
3	Perceived Price	3.50	1.09	.501**	.477**	(.902)			
4	Perceived Convenience	4.15	.85	.818**	.760**	.558**	(.925)		
5	Perceived Trust	3.70	1.00	.627**	.634**	.532**	.634**	(.932)	
6	Purchase Intention	4.03	.81	.812**	.788**	.464**	.776**	.694**	(.908)

Notes: **. Correlation is significant at the 0.01 level (1-tailed). N=375. The Cronbach's alphas are in the parentheses along the diagonal.

Based on Table 5, the mean values for all the variables are in the range of 3.50 to 4.15 with the standard deviation values in the range of 0.81 to 1.09, indicating that consumers scored high on all the variables with a certain degree of variation. Pearson correlation analysis was used to examine the relationship between variables. The results show that the independent variables (perceived usefulness, perceived ease of use, and perceived convenience) are highly correlated with each other, signifying convergent validity. The r values are 0.776 to 0.812. On the other hand, the independent variable that is significantly and highly correlated with the dependent variable is perceived trust, denoting concurrent validity. The r value is 0.694. Besides, the independent variable (Perceived Price) is moderately correlated. The r value is 0.464. The table above also displays the reliability coefficients of the variables which indicate that all the items measuring intended variables are highly reliable with Cronbach's alphas in the range of 0.849 to 0.932.

4.5. Hierarchical Regression Analysis

Table 6. Results of generational differences

Variables	Gen Z			Gen Y			Gen X			Baby Boomers		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Perceived Usefulness	.348**	.352**	.319**	.348**	.346**	.387**	.348**	.351**	.356**	.348**	.343**	.315**
Perceived Ease of Use	.271**	.271**	.370**	.271**	.271**	.272**	.271**	.270**	.226**	.271**	.270**	.233**
Perceived Price	-.056	-.050	-.029	-.056	-.053	-.098*	-.056	-.054	-.036	-.056	-.055	-.045

Perceived Convenience	.176**	.178**	.134*	.176**	.176**	.127*	.176**	.173**	.249**	.176**	.173**	.189**
Perceived Trust	.222**	.220**	.206**	.222**	.221**	.257**	.222**	.225**	.181**	.222**	.223**	.231**
Moderator		-.030	.137		.012	-.123		.039	.197		-.022	-.170
Perceived usefulness* Moderator			.171			-.271			-.143			.228
Perceived ease of use* Moderator			-			-.097			.340			.324
Perceived Price* Moderator			-.068			.205**			-.014			-.036
Perceived Convenience* Moderator			.253			.558**			-.468*			-.363
Perceived Trust* Moderator			.073			-.259			.125			-.006
R	.872	.873	.876	.872	.872	.877	.872	.873	.877	.872	.873	.875
R ²	.761	.762	.767	.761	.761	.769	.761	.762	.768	.761	.761	.766
R ² Change	.761	.001	.006	.761	.000	.008	.761	.002	.006	.761	.000	.004
F Change	234.693	1.305	1.736	234.693	.227	2.418	234.693	2.388	1.880	234.693	.663	1.363
Sig. F Change	.000	.254	.126	.000	.634	.036	.000	.123	.097	.000	.416	.237
Durbin Watson			1.901			1.883			1.874			1.879

Table 6 shows the results of hierarchical regression analyses investigating the moderating influence of generational differences: namely, Gen Z, Millennial, Gen X, and Baby Boomers on the relationship between factors affecting consumers' and online purchase intention. The moderator is a categorical variable. It was entered into the regression equation in the second and third models. A dummy variable for each category was created. Model 1 in the table reflects the direct relationship between factors affecting consumers' and online purchase intention. Model 2 signifies the extent of additional variance explained when a moderator is included in the regression model. Model 3 highlights the interaction of the moderator variable with the independent variables and their relationship with the dependent variable.

Referring to Model 1, the results indicate that all variables except perceived price are significant to influence online purchase intention with perceived usefulness ($\beta=.348$, $p<.01$) as the strongest predictor, while perceived convenience is the weakest predictor ($\beta=.176$, $p<.01$). In the first model, the R² of 0.761 denotes 76.1 percent of the variance was explained by the five independent variables. The model is significant ($F(234.693)=234.693$, $p<.01$), with a Durbin-Watson value of 1.901, indicating the absence of an autocorrelation problem. The second model of regression analysis with the inclusion of Gen Z presents an increase in R² to be 0.762 indicating 76.2 percent of variance explained in the model. The model is not significant ($F(195.956) = 1.305$, $p>.05$). Pertaining to the relationship between the moderator and the dependent variable, Gen Z is not significant to predict online purchase intention ($\beta= -.030$, $p>.05$). In the third model, the inclusion of the interaction terms increases the variance explained to 76.7 percent with the F change is also not significant. The regression model is not significant ($F(108.743)= 1.736$, $p>.05$). The results specify that Gen Z does not significantly moderate the relationship between the independent variables and online purchase intention.

The second model of regression analysis with the inclusion of millennials presents the same value in R² which is 0.762 indicating 76.2 percent of variance explained in the model. The model is not significant ($F(195.206) = 1.305, p > .05$). Pertaining to the relationship between the moderator and the dependent variable, Millennial is not significant to predict online purchase intention ($\beta = -.012; p > .05$). In the third model, the inclusion of the interaction terms increases the variance explained to 76.9 percent and the F change is significant. The regression model is significant ($F(109.627) = 1.736, p < 0.05$). The results specify that millennial is established to moderate the relationship partially and significantly between perceived convenience and online purchase intention ($\beta = .558; p < .01$) and between perceived price and online purchase intention ($\beta = .205; p < .01$).

The second model of regression analysis with the inclusion of Gen X presents an increment in R² which is 0.762 indicating 76.2 percent of variance explained in the model. However, the model is not significant ($F(196.711) = 2.388, p > .05$). Pertaining to the relationship between the moderator and the dependent variable, Gen X is not significant to predict online purchase intention ($\beta = .039; p > .05$). In the third model, the inclusion of the interaction terms increases the variance explained to 76.8 percent, however, the F change is not significant. The regression model is not significant ($F(109.434) = 1.880, p > .05$). The results specify that Gen X is not significant to moderate the relationship between the independent variables and online purchase intention.

The second model of regression analysis with the inclusion of Baby Boomers presents the same value in R² which is 0.761 indicating 76.1 percent of variance explained in the model. The model is not significant ($F(195.510) = 0.663, p > .05$). Pertaining to the relationship between the moderator and the dependent variable, Baby Boomer is not significant to predict online purchase intention ($\beta = -.022, p > .05$). In the third model, the inclusion of the interaction terms increases the variance explained to 76.6 percent, however, the F change is not significant. The regression model is not significant ($F(107.788) = 1.363, p > .05$). The results specify that Baby Boomers are not significant to moderate the relationship between the independent variables and online purchase intention.

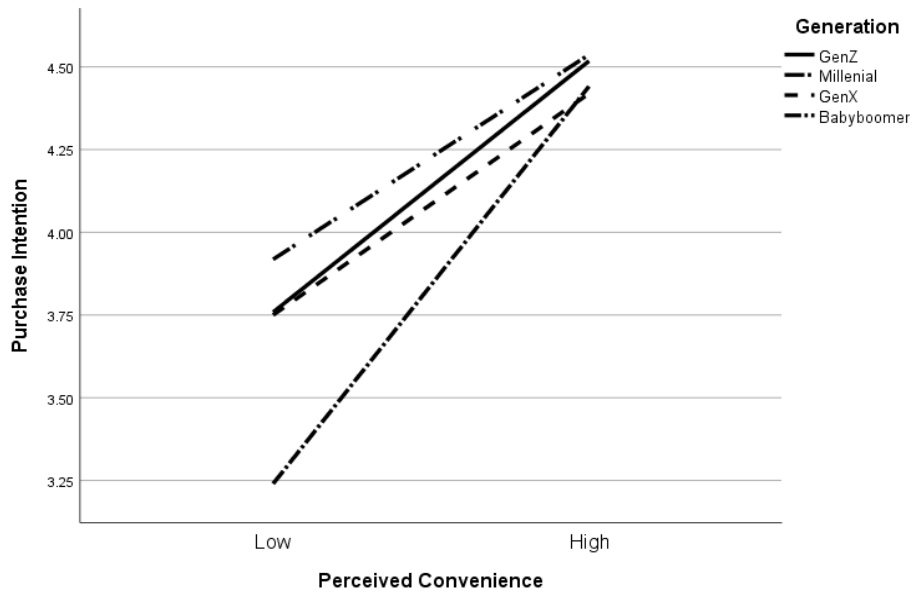


Figure 2. The moderating effect of generational differences on the relationship between perceived convenience and purchase intention

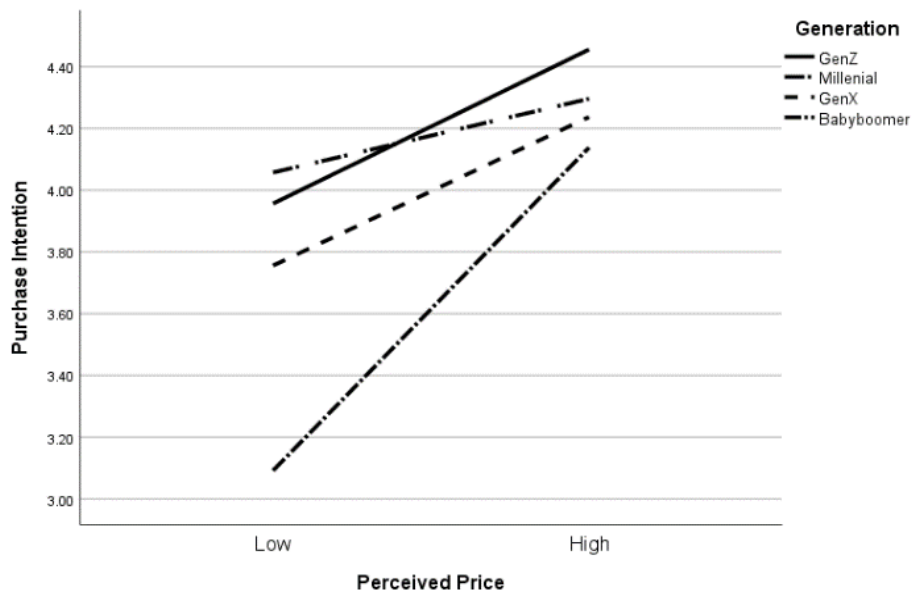


Figure 3. The Moderating Effect of Generational Differences on the Relationship between Perceived Price and Purchase Intention

To illustrate the influence of the moderator on the relationship of factors affecting consumers' online purchase intention, a three-dimensional graph was constructed by transforming the continuous data of the moderator and the independent variable into categorical data (high and low) using the median score for each variable. For the first significant interaction effect, Millennials strongly moderate perceived convenience and online purchasing intention (Figure 2). Low convenience reduces online purchase intention. Similarly, high convenience will end up in high online purchase intention. The result is like Kiew et al. (2021). It may be claimed that convenience is a primary aspect or motivator for consumers to

prefer online platforms over physical stores. When consumers realise physical shopping is inconvenient, they prefer to purchase online. According to a previous study (Shanthi & Desti, 2015), online shopping platforms allow users to purchase comfortably and without interruption. Most shoppers choose internet purchasing for its convenience and time-savings. The second significant interaction effect, the generation (Millennials) was found to significantly moderate the relationship between perceived price and online purchase intention (Figure 3). Basically, the perceived price has a direct linear relationship with online purchase intention. Low price reduces online purchase intention. Similarly, high prices will end up in high online purchase intention. The consumer's reactions to the price were influenced by product information or transaction cost and mass media accessibility. It may be claimed that price is the primary factor that motivates consumers to make online purchases.

5. Conclusion

5.1. Theoretical Contributions

A theoretical contribution on generational differences and online purchase intention during COVID-19 involves a framework that integrates existing theories and examines the impact of five factors (perceived ease of use, perceived usefulness, perceived trust, perceived price, and perceived convenience) on online purchase intention. Perceived usefulness, simplicity of use, trust, and convenience were significant with the dependent variable. Only perceived price did not affect online purchasing intention. This study evaluated how generational variations affect independent factor-dependent variable relationships. Millennials (price and convenience) affect online buying intention. It incorporates Technology Acceptance Model (TAM). The approach examines generational differences, the five criteria, and online purchasing intention to fill gaps in earlier studies. The hypothesis shows that Millennials perceived convenience and perceived price during online purchase intention. This contribution would add to the existing body of knowledge in the field and provide a comprehensive framework for future research in this area.

5.2. Practical Contributions

A practical contribution regarding the factors affecting online purchase intention with the role of generational differences could involve using the results of empirical research to develop and implement strategies for improving online purchase intention among different generations such as identifying the most important factors for each generation. For instance, Millennials were focusing more on perceived convenience and perceived price. These factors must be prioritised in online marketing and sales effort. Next, improving website usability and design. Based on the results of the research, make changes to the website design and user experience to improve the perceived ease of use and perceived usefulness, taking into account the specific preferences and needs of different generations. Other than that, Address concerns around perceived trust by implementing measures such as secure payment options, transparent privacy policies, and clear and concise information about the company and its products. In addition, offer delivery options that cater to the preferences of different generations, such as same-day delivery, in-store

pickup, or shipping to multiple locations. Pertaining to perceived price, the sellers may adjust pricing strategies, accordingly, offering discounts or special promotions to attract price-sensitive customers.

5.3. Limitations and Suggestions for Future Research

This study has limitations to be improved for future research. The survey targets respondents only with online purchase experience. Thus, the study excludes potential buyers who have never purchased online but intend to in the future. The study will be more generalizable by including potential online customers. The study also solely examines generation differences in moderating factors that influence online purchasing intention. Future studies may include other demographic items such as gender, marital status, and employment to moderate the relationship between shopping attitudes and online purchase intention. Future studies can employ theories like the Theory of Planned Behavior, which focuses on attitude, subjective norms, and perceived behavioural control, to identify independent variables that may affect online shopping purchase intention studies. This is to ensure an accurate and reliable response from them. This interview is more efficient than conducting an online survey approach in terms of getting more accurate feedback.

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