

The Online Shopping Behavior of Indonesian Generation X toward E-Commerce

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ABSTRACT

E-commerce is one of the information technologies that influence consumer behavior. Generation X is characterized by a higher internet adoption rate than the previous generation. It is an interesting phenomenon to study this generation's behavior, as digital immigrants, toward using e-commerce. For that reason, this study aims to examine the acceptance and use of e-commerce among Generation X. This study used the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) theory for this purpose. It used the sample of 369 Generation X respondents in Indonesia who were using e-commerce, and they were selected using purposive sampling. The questionnaires were distributed online, and then the data were analyzed using structural equation modeling. The findings showed that Generation X's acceptance of e-commerce was influenced by performance expectancy, hedonic motivation, habit, price value, and behavior intention. On the contrary, effort expectancy, facilitating condition, and social influence were not the predictor that influenced Generation X to use e-commerce. This study offers valuable insights for e-commerce founders in the development and refinement of e-commerce platforms.

ABSTRAK

E-commerce merupakan salah satu teknologi informasi yang mempengaruhi perilaku konsumen. Generasi X ditandai dengan tingkat adopsi internet yang lebih tinggi daripada generasi sebelumnya. Masalah ini merupakan fenomena menarik untuk diteliti khususnya terkait dengan perilaku generasi ini, sebagai imigran digital, dalam menggunakan e-commerce. Oleh karena itu, penelitian ini bertujuan untuk menguji penerimaan dan penggunaan e-commerce di kalangan Generasi X. Penelitian ini menggunakan teori Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). Sampel yang digunakan adalah 369 responden Generasi X di Indonesia yang menggunakan e-commerce dan dipilih secara purposive sampling. Kuesioner dibagikan secara online dan kemudian data dianalisis menggunakan pemodelan persamaan struktural. Hasil penelitian menunjukkan bahwa penerimaan e-commerce Generasi X dipengaruhi oleh ekspektasi kinerja, motivasi hedonis, kebiasaan, nilai harga, dan niat berperilaku. Sebaliknya, ekspektasi usaha, kondisi fasilitasi, dan pengaruh sosial tidak ditemukan menjadi prediktor yang mempengaruhi Generasi X untuk menggunakan e-commerce. Studi ini menawarkan wawasan berharga bagi pendiri e-commerce dalam pengembangan dan penyempurnaan platform e-commerce..

1. INTRODUCTION

Information technology (IT) and the implementation of e-commerce have penetrated human life in the trade sector recently. It is also argued that information technology has influenced various human life activities and is regarded as an essential tool in enhancing the competitiveness of a country's economy (Oliveira & Martins, 2010). This condition is also felt in the economic world, especially in the trade sector. Therefore, with the synergy between

information technology and trade, the term e-commerce is created. It can be generalized that the combination of information technology and trade activities leads to the creation of e-commerce.

It is essential to see what e-commerce is to get its conceptual understanding toward Generation X. As it is defined, electronic commerce (EC or e-commerce) is the process of buying, selling, transferring, or exchanging products, services, and information via computer networks, including

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internet (Turban et al., 2015). E-commerce also makes it easier for many consumers to use the internet to shop using various devices in the purchase process (Bilgihan, Kandampully, & Zhang, 2016). However, the influence of e-commerce on consumer behavior will depend on generations because each of them has different characteristics (Porral & Sanchez, 2019). For instance, millennial and Generation X (Gen X) individuals exhibit a differentiated technology behavior. As a digital immigrant, Gen X is characterized by technology and media savvy (Prensky, 2001). Therefore, Gen X's behavior toward using e-commerce is an interesting phenomenon to be studied.

There are some previous studies related to Gen X's behavior on using the technology. For example, Venkatesh et al. (2003, 2012) examine Gen X consumer behavior based on user acceptance of technology. Kwateng, Atiemo, & Appiah (2019) study the factors affecting Smartphone acceptance using the unified theory of acceptance and use of technology (UTAUT) on various age groups, including the Generation X age group. However, this study only considers habit, social influence, facilitating condition, hedonic motivation, price value, effort expectancy, and performance expectancy. They suggested other researchers should explore other potential relationships between factors or devise additional constructs to explain people's behavior more accurately.

An empirical analysis is crucial, especially using the unified theory of acceptance and use of technology (UTAUT) 2 Model. More specifically, when it deals with Gen X in Indonesia, it represents Indonesia's sizeable population. Gen X amounted to 58.65 million people or about 22 percent of Indonesia's total population, and 13 percent of Gen X internet users do online shopping on e-commerce (*Biro Pusat Statistik*, 2020). Furthermore, the involvement of Gen X users in using technology is usually ignored. Moreover, the marketers only focus their online strategy and campaign for Millennials, and most studies only concentrated on Millennial and Gen Z online shopping behavior. This research examines the acceptance and use of e-commerce among Generation X by using the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) model. Thus, the UTAUT2 variables used in this research were performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

When dealing with the unified theory of acceptance and technology use, it can be referred to some previous studies. For example, Venkatesh et al.(2003) first developed the unified theory of acceptance and use of technology (UTAUT) as a comprehensive synthesis of the eight previous technology acceptance models. Furthermore, as Thongsri, Shen, & Bao (2019) stated, UTAUT is a widely used theory in various fields of information and communication technology acceptance. Another example is that Venkatesh et al.(2012) developed the UTAUT2 model, intending to explore the factors influencing the acceptance and use of technology with a modified consumer perspective with more constructs and fewer moderators. They add three new constructs, namely, hedonic motivation, price value, and habits (exogenous constructs), along with four primary constructs, namely performance expectancy, effort expectancy, facilitating condition, and social influence, which influence behavioral intention towards use behavior.

Performance Expectancy (PE)

Performance expectancy can help an individual get work performance, and it is also the strongest predictor of intention to achieve the goal. Concerning performance expectancy, Venkatesh et al.(2003) described performance expectancy as the extent to which individuals believe that using the system will help them get work performance or benefits. Performance expectations are the levels that individuals believe that using the system will help people achieve a goal (Bao et al., 2013; Zhou et al., 2020). Venkatesh et al.(2003) stated that performance expectations represent five constructs, including perceived usefulness, extrinsic motivation, job suitability, relative advantage, and outcome expectations. Performance expectancy is crucial for an individual's actual performance (Carlsmith, 1962) and intention to purchase (Juaneda-Ayensa, 2016). Previous studies showed that performance expectancy has proved to be significant and the strongest predictors of intention for individuals to get work performance (Alalwan, Dwivedi, & Rana, 201; Oliveira & Tam, 2016; Prasarry, 2015). Therefore, the hypothesis below purpose:

H₁: Performance expectancy has positive and significant influences on Gen X's behavioral intention to use e-commerce.

Effort Expectancy (EE)

Effort expectancy is the extent to which ease is associated with a person's use of the system (Jewer, 2018; Venkatesh et al., 2003). Therefore, effort expectancy represents the construction of perceptions of ease of use, complexity, and ease of use. Online consumers do not have much time to shop, so they prefer to use online delivery services because of time savings and convenience (Zhou et al., 2020). Therefore, effort expectancy has been a vital factor in technology acceptance (Alalwan et al., 2017; Jaradat & Rababaa, 2013; Oliveira & Tam, 2016). Therefore, the hypothesis below purpose:

H₂: Effort Expectancy has positive and significant influences on Gen X's behavioral intention to use e-commerce

Social Influence (SI)

Social influence is defined as the degree to which an individual feels that if someone else believes he or she should use the new system (Venkatesh et al., 2003). It relates to the degree to which other people think that the user should try online services (Zhou et al., 2020). There are three constructs of representation of social influences such as subjective norms, social factors, and images (Venkatesh et al., 2003). Social influence has proven to have an important role and is a significant factor in influencing the intention to use technology (Morosan & Defranco, 2016; Oliveira & Tam, 2016; Tak & Panwar, 2016). Thus, the following hypotheses were formulated:

H₃: Social Influence has positive and significant influences on Gen X's behavioral intention to use e-commerce.

Facilitating Conditions (FC)

Facilitating condition is the degree to which an individual believes that an organizational and technical infrastructure exists to support the system's use (Venkatesh et al., 2003). This definition captures concepts embodied by three constructs: perceived behavioral control, facilitating conditions, and compatibility. Better encouraging states will reduce the effort required to use the technology and therefore increase the intention to use it (Wang, 2020). Previous studies show that behavioral intention and actual usage were significantly influenced by facilitating conditions (Alalwan et al., 2017; Raza, Shah, & Ali, 2018; Tak & Panwar, 2016). Thus, the following hypotheses were formulated:

H₄: Facilitating Condition has positive and significant influences on Gen X's behavioral intention to use e-commerce.

Hedonic Motivation (HM)

Hedonic motivation is defined as the pleasure obtained from technology (Al-Azawei & Alowayr, 2020; Venkatesh et al., 2012). It has been shown to play an essential role in determining the acceptance and use of technology. For example, Van der Heijden (2004) and Thong et al. (2006) claim that hedonic motivation has been found to directly influence the acceptance and use of technology. Pleasure and fun created by technology when individuals using it will affect their behavioral intention to pursue the technology (Alalwan et al., 2017; Morosan & Defranco, 2016; Raza et al., 2018). Thus, the following hypotheses were formulated:

H₅: Hedonic Motivation has positive and significant influences on Gen X's behavioral intention to use e-commerce.

Habit (HT)

Limayem, Hirt, & Cheung (2007) stated that habit is the degree to which people tend to do behavior automatically because of learning. When users intend to use the online shopping platform, they often use it (Law, 2020). Empirical findings on the role of habits in technology use have illustrated the distinct underlying processes by which habits influence technology use (Venkatesh et al., 2012). Previous studies have proved that habit has become the driver of technology use (Gaitan, Peral, & Jeronimo, 2015; Morosan & Defranco, 2016; Tak & Panwar, 2016). Thus, the following hypotheses were formulated:

H₆: Habit has positive and significant influences on Gen X's behavioral intention to use e-commerce.

Price Value (PV)

As Venkatesh et al. (2012) mentioned, costs and prices significantly affect consumer technology. The price value reflects the perceived benefits and quality of online shopping relative to its price (Bower, DeWitt, & Lai, 2020). According to Cheung, Chan, & Limayem (2008), there is evidence that the popularity of short message service (SMS) in China is preferred due to the low price of SMS compared to other types of mobile internet applications. Price value has been proved to be one of the significant drivers of technology use (Tam & Oliveira, 2016;

Tandon, Kiran, & Sah, 2016; Venkatesh et al., 2012). It can be stated that price value affects consumer's technology, and the low price is considered a preference by the consumers. Thus, the following hypotheses were formulated:

H₇: Price value has positive and significant influences on Gen X's behavioral intention to use e-commerce

Behavioral Intention (BI)

According to Venkatesh et al. (2003), behavioral intention is the extent to which people's interest in using a system uses the system continuously, assuming that they have access to the system. Intention to behave is defined as a measure of the

strength of a person's intention to perform certain behaviors. This reflects as a signal of actual behavior (Chen, 2016). In the basic concept of the user acceptance model developed, behavioral intention becomes an intermediary construct for perceptions of the use of information technology and actual use (use behavior). Thus, the following hypotheses were formulated:

H₈: Behavior Intention has positive and significant influences on Gen X's behavioral intention to use e-commerce.

Based on discussion, the research framework is presented in Figure 1.

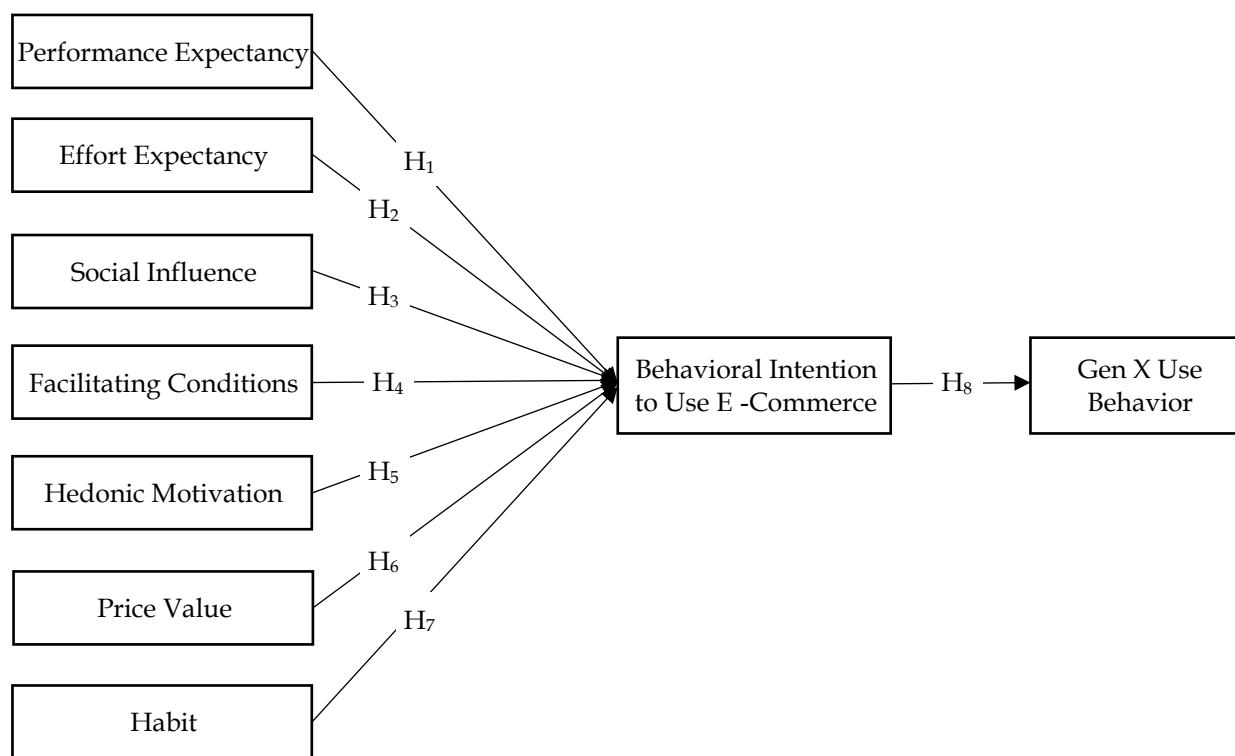


Figure 1. Conceptual Framework

3. RESEARCH METHOD

This study used quantitative data which were collected from primary sources. This study was conducted in Indonesia, where the percentage of online shopping behavior in e-commerce among Gen X was 13 percent of the total internet usage in Indonesia (Lokadata Indonesia). The population of this research was Generation X, who has done an online transaction in e-commerce. Based on the purposive sampling technique, there were 290 participants in this study. Data was collected using an online survey conducted via Google Form using

Likert-style rating questions. The research hypothesis was tested using the Structural Equation Model (SEM) approach based on Partial Least Square (PLS).

4. DATA ANALYSIS AND DISCUSSION

Table 1 shows the characteristics of 290 respondents who participated in filling out the research questionnaire, and the data is analyzed. Based on this table, the most significant number of respondents live in Bali, namely 87 respondents or 87.0 percent. The second-largest respondents in this

research came from Jakarta, which is equal to 69 respondents or 23.8 percent. Respondents from generation X who use e-commerce platforms in this

study were dominated by female respondents and dominated by respondents who use it more than five times.

Table 1. Respondent Characteristics

	Number of Respondents	Percentage
Domicile		
Bali	87	30.0
East Java	36	12.4
Central Java	28	9.7
Jakarta	69	23.8
West Java	29	10.0
West Nusa Tenggara	9	3.1
East Nusa Tenggara	5	1.7
Yogyakarta	18	6.2
Sulawesi	9	3.1
Gender		
Female	167	57.6
Male	123	42.4
Shopping Frequency		
1 time	22	7.6
< 5 times	89	30.7
> 5 times	179	61.7

Measurement Model (Outer Model)

The first stage was to test the measurement model by looking at each indicator's constructs' validity and reliability. As Cooper and Schindler (2006) mentioned, the validity test is carried out to determine the research instrument's ability to

measure what should be measured. The reliability test is used to measure measuring instruments' consistency in measuring a concept, and it also measures respondents' consistency in answering the questionnaire's questions(Hair et al., 2012).

Table 2. Convergent Validity

	BI	EE	FC	HM	HT	PE	PV	SI	UB
BI1	0.714								
BI2	0.818								
BI3	0.758								
EE1		0.814							
EE2		0.762							
EE3		0.686							
EE4		0.766							
FC1			0.788						
FC2			0.702						
FC3			0.678						
FC4			0.692						
HM1				0.754					
HM2				0.823					
HM3				0.730					
HT1					0.685				
HT2					0.679				

	BI	EE	FC	HM	HT	PE	PV	SI	UB
HT3					0.740				
HT4					0.731				
PE1						0.708			
PE2						0.661			
PE3						0.785			
PE4						0.766			
PV1							0.712		
PV2							0.799		
PV3							0.728		
SI1								0.831	
SI2								0.822	
SI3								0.727	
UB1									1.000

Table 2 shows that the convergent validity value of all indicators in each variable has met the requirements where the convergent validity value must be greater than 0.7. Table 2 indicates that several indicators show a convergent validity value below

0.7. However, it can still be tolerated because the minimum requirement for convergent validity is 0.5 (Chin & Todd, 1995). Therefore, it can be concluded that the data has met the convergent validity and the research data is valid.

Table 3. AVE, Composite Reliability, and Cronbach's Alpha

Construct	AVE	CR	Cronbach's Alpha
Behavioral Intention (BI)	0.584	0.808	0.642
Effort Expectancy (EE)	0.575	0.844	0.757
Facilitating Condition (FC)	0.513	0.808	0.700
Hedonic Motivation (HM)	0.593	0.813	0.655
Habit (HT)	0.503	0.802	0.673
Performance Expectancy (PE)	0.535	0.821	0.720
Price Value (PV)	0.559	0.791	0.607
Social Influence (SI)	0.631	0.837	0.709
Use Behavior (UB)	1.000	1.000	1.000

Table 3 shows that each variable's AVE value is above the expected value that is above 0.5. All latent variables in this research have AVE values greater than 0.5, which means that the indicator used in this study is valid or has fulfilled the convergence validity. Table 3 also shows that the Composite Reliability value of all variables in the research model has a composite reliability value higher than the rule of thumb, which is 0.7. Therefore, it can be said that the reliability of the variables in the model is relatively high. Furthermore, it also shows that Cronbach's alpha value for each variable is higher than 0.7. In the table above, it can also be seen that several indicators show a Cronbach's Alpha value

below 0.7. However, it can still be tolerated because the minimum requirement for Cronbach's Alpha is 0.6. Thus, it can be said that the consistency of each answer is good and reliable

The Structural Model (Inner Model)

The structural model in PLS is evaluated using the Coefficient of Determination (R²) and the Path Coefficient (β). It is used to see and convince the relationship between the constructs made. The function of the determination value R² is used to explain the variable's influence on other variables, both those in the research model and those not.

Table 4. Coefficient of Determination

	R Square	R Square Adjusted
Behavioral Intention (BI)	0.484	0.472
Use Behavior (UB)	0.278	0.276

Table 4 shows the results of the R² value, and it can be seen that there is no UTAUT2's independent variable because these variables do not have a coefficient of determination R², considering that other variables do not influence the variable in this study. The coefficient value of the Behavioral Intention variable is 0.484, which means 48.4 percent of this variable is influenced by the UTAUT2's independent variables such as PE, EE, SI, FC, HM, PV, HT, and the remaining 51.6 percent is influenced by other variables outside of this study which is not examined. The Use Behavior variable has an R² value of 0.278

which means 27.8 percent of this variable is influenced by behavioral intention, while the remaining 72.2 percent is influenced by other variables not examined.

Hypothesis Testing and Discussion

The significance is done by analyzing the value of the parameter coefficient and the statistical significance value t to determine the effect between variables through the bootstrapping procedure in SmartPLS 3.0. The results of the analysis are presented in Table 5

Table 5. Bootstrapping Output

	Original Sample (O)	T-Statistics (O/STDEV)	P Values
Performance Expectancy -> Behavioral Intention	0.103	1.889	0.030
Effort Expectancy -> Behavioral Intention	0.047	0.796	0.213
Social Influences -> Behavioral Intention	0.047	0.933	0.176
Facilitating Condition -> Behavioral Intention	0.011	0.191	0.424
Hedonic Motivation -> Behavioral Intention	0.133	2.450	0.007
Habit -> Behavioral Intention	0.388	8.603	0.000
Price Value -> Behavioral Intention	0.245	4.048	0.000
Behavioral Intention -> Use Behavior	0.528	10.909	0.000

Relationship between Performance Expectancy and Behavioral Intention

Based on the first hypothesis, the proposed H1 is supported, where performance expectancy positively influences Gen X's behavioral intention to use e-commerce. Table 5 shows that the *t-statistic* value for the construct of performance expectancy towards behavioral intention is greater than the *t-table* value (1.65), equal to 1.889. The *p-value* is smaller than 0.05, which is equivalent to 0.030. Thus, the relationship between performance expectancy and behavioral intention is proved significant. The coefficient value of the latent variable performance expectancy on the output path coefficient is 0.103, which means there is a positive influence of 10.3 percent on the construct of behavioral intention. This indicates that an excellent online shopping platform performance will encourage Gen X customers to intend to shop online using the platform. These findings are supported by Tak and Panwar (2017), who found that performance expectancy influences intention to use mobile

applications for shopping. Furthermore, Farooq et al.(2017) revealed that performance expectancy significantly influences acceptance and use of lecture capture systems (LCS) in executive business students.

Relationship between Effort Expectancy and Behavioral Intention

The proposed second hypothesis is not supported, where the findings in this research show that effort expectancy has an insignificant influence on behavioral intention. Table 5 shows that the *t-statistic* value for the construct of effort expectancy towards behavioral intention is smaller than the *t-table* value (1.65), equal to 0.796. The *p-value* is higher than 0.05, which is equivalent to 0.213. Thus, the relationship between effort expectancy and behavioral intention is proved to be insignificant. The coefficient value of the latent variable effort expectancy on the output path coefficient is 0.047, which means there is a positive influence of 4.7 percent on the construct of behavioral intention. This study's result is following research

conducted by Yu(2011), where effort expectancy didn't play a significant role in influencing individual intention to use mobile banking. A similar result was also found in Yusliansyah's (2017) research, where users do not consider the easy-to-use as factors that affect intention significantly.

Relationship between Social Influence and Behavioral Intention

The proposed-third hypothesis is also not supported, where the findings in this research show that social influence has an insignificant effect on behavioral intention. Table 5 shows that the *t-statistic* value for the construct of social influence towards behavioral intention is smaller than the *t-table* value (1.65), which is equal to 0.933. The *p-value* is higher than 0.05, which is equivalent to 0.176. Thus, the relationship of social influence towards behavioral intention is proved to be insignificant. The coefficient value of the latent variable effort expectancy on the output path coefficient is 0.047, which means there is a positive influence of 4.7 percent on the construct of behavioral intention. These findings are the following research conducted by Alalwan et al.(2017) on mobile banking, which shows that social influence cannot explain behavioral intention. It happens because customers seem to be less interested in their groups' recommendations and attitudes, such as family, friends, and colleagues, in formulating their intention to adopt the system. Social influence was also not significant in the study conducted by Shaw and Sergueeva(2019), which suggests that the probability of people fulfilling others' expectations is greater for users whose behavior is rewarded or penalized.

Relationship between Facilitating Condition and Behavioral Intention

The proposed-fourth hypothesis is rejected, where the findings in this research show that facilitating condition has an insignificant influence on behavioral intention. Table 5 shows that the *t-statistic* value for facilitating condition towards behavioral intention is smaller than the *t-table* value (1.65), equal to 0.191. The *p-value* is higher than 0.05, which is equivalent to 0.424. Thus, the relationship of facilitating condition towards behavioral intention is proved to be insignificant. The coefficient value of the latent variable facilitating condition on the output path coefficient is 0.047, which means there is a positive influence of 4.7 percent on the construct of behavioral intention. These findings are in line with previous research that has been conducted by Nofadhila et al. (2018) and Mardjo(2018). They argued that facilitating conditions may be insignificant because the data is

taken in developing countries where IT infrastructure and IT knowledge are still relatively low, especially regarding e-commerce.

Relationship between Hedonic Motivation and Behavioral Intention

The proposed-H5 is supported in this research, where hedonic motivation positively influences generation X's behavioral intention to use e-commerce. Table 5 shows that the *t-statistic* value for the construct of hedonic motivation towards behavioral intention is greater than the *t-table* value (1.65), equal to 2.450. The *p-value* is smaller than 0.05, which is equivalent to 0.007. Thus, the relationship of hedonic motivation towards behavioral intention is proved significant. The coefficient value of the latent variable hedonic motivation on the output path coefficient is 0.133, which means there is a positive influence of 13.3 percent on the construct of behavioral intention. This indicates that the pleasure or enjoyment obtained from using an online shopping platform can encourage Gen X customers to intend to use the platform. The findings in this research are supported by Tak and Panwar(2016), who found the hedonic motivation positively influenced acceptance and use of mobile applications for shopping. Furthermore, according to Kunz and Santomier(2019), hedonic motivation showed significant positive impacts on sports VR usage intention.

Relationship between Habit and Behavioral Intention

The proposed-H6 is accepted in this research, where habit positively influences generation X's behavioral intention to use e-commerce. Table 5 shows that the *t-statistic* value for the construct of habit towards behavioral intention is greater than the *t-table* value (1.65), equal to 8.603. The *p-value* is smaller than 0.05, which is equivalent to 0.000. Thus, the relationship of habit towards behavioral intention is proved significant. The coefficient value of the latent variable habit on the output path coefficient is 0.388, which means there is a positive influence of 38.8 percent on the construct of behavioral intention. Tak and Savita, (2017) proved the habit was a significant predictor of behavior in using mobile applications for shopping. Furthermore, the research of Farooq et al.(2017) found that habits have a significant positive effect on the acceptance and use of the lecture-taking system in implementing business students. The finding implies that habit is a crucial factor affecting the adoption of online shopping platforms (Kwateng et al., 2018).

Relationship between Price Value and Behavioral Intention

The proposed-seventh hypothesis is accepted in this research, where price value positively influences generation X's behavioral intention to use e-commerce. Table 5 shows that the *t*-statistic value for the construct of price value towards behavioral intention is greater than the *t*-table value (1.65), equal to 4.048. The *p*-value is smaller than 0.05, which is equivalent to 0.000. Thus, the relationship of price value towards behavioral intention is proved significant. The coefficient value of the latent variable price value on the output path coefficient is 0.245, which means there is a positive influence of 24.5 percent on the construct of behavioral intention. Tak and Savita (2017) found price positively affects behavioral intentions to use mobile applications for shopping. Farooq et al.(2017)also found that price value has a significant positive influence on acceptance and use of lecture capture system in executive business student. This means that Gen X customers consider an online shopping platform's benefits relative to the price or costs incurred.

Relationship between Behavioral Intention and Use Behavior

The proposed eighth hypothesis is also accepted in this research, where behavioral intention positively influences generation X to use e-commerce. Table 4 shows that the *t*-statistic value for the construct of behavioral intention towards use behavioral is greater than the *t*-table value (1.65), which is equal to 10.909. The *p*-value is smaller than 0.05 is equal to 0.000. Thus, the relationship between behavioral intention and the use behavior is proved significant. The coefficient value of the latent variable behavioral intention on the output path coefficient is 0.528, which means there is a positive influence of 52.8 percent on the construct of user behavior. This result is consistent with Venkatesh et al. (2003), which shows that the desire to use a system significantly affects system use (use behavior). Moorthy et al. (2018) showed that behavioral intention positively influences the adoption of a digital library. Furthermore, Farooq et al. (2017) proved that behavioral intention positively influences the acceptance and use of lecture capture systems for executive business students. In the context of this study, behavioral intention is a mediator of the influence of performance expectancy, hedonic motivation, habit, and price value on the use of online platforms.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Gen X, who uses e-commerce in Indonesia, shows a significant number, and it is essential to examine their behavior towards this technology. Therefore, this research analyzed how Gen X accepts and used e-commerce by using the UTAUT2 model. Based on the research findings, the five variables of UTAUT2 show a positive and significant influence, and the other three variables show insignificant impact. The result shows that performance expectancy, hedonic motivation, price value, habit, and behavior intention show a positive and significant influence on Gen X's behavior to use e-commerce. Therefore, it indicates that Gen X individuals believe that using e-commerce has helped them achieve their goals. They also feel the pleasure and happiness utilize e-commerce in doing online shopping. They think that the benefits received more significant than the monetary cost of using the system. Fort that reason, Gen X users will be more likely to accept and adopt e-commerce in their lives.

On the contrary, the other three variables, such as effort expectancy, facilitating condition, and social influence, show an insignificant effect on Gen X's behavior to use e-commerce. The minor findings possibly happen when Gen X is not considered easy-to-use as factors that significantly affect intention. Moreover, IT infrastructure and IT knowledge are still relatively low regarding e-commerce, especially in developing countries. Besides, Gen X also seems less interested in their groups' recommendations and attitudes, such as family, friends, and colleagues, in formulating their intention to adopt the system. In summary, this study provides broader insights in understanding Gen X's behavior in the adoption of e-commerce. This study's result can be used when the founder of e-marketplace can develop an e-commerce platform by adding several features that can help generation X in doing the online shopping activity on the platform. In addition to increasing Gen X's habitual use, e-commerce developers can build a platform that is easy to use by the Gen X community by providing user-friendly features and improving security systems to decrease the level of risk.

The main limitation of this study is that moderating variables could be added to the research to explain the application of this model. Future research could integrate two or more models with the other technology adoption to provide a higher level of explanation in the acceptance of e-commerce.

REFERENCES

- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99–110.
- Al-Azawei, A. & Alowayr, A. (2020). Predicting the intention to use and hedonic motivation for mobile learning: A comparative study in two Middle Eastern countries. *Technology in Society*, 62, 101325.
- Bao, Y., Xiong, T., Hu, Z., & Kibelloh, M. (2013). Exploring gender differences on general and specific computer self-efficacy in mobile learning adoption. *Journal of Educational Computing Research*, 49(1), 111–132.
- Biro Pusat Statistik. (2010). *Sensus Penduduk Indonesia 2010*. Jakarta: Biro Pusat Statistik
- Bilgihan, A., Kandampully, J., & Zhang, T. C. (2016). Towards a unified customer experience in online shopping environments. *International Journal of Quality and Service Sciences*, 8(1), 102–119.
- Bower, M., DeWitt, D., & Lai, J. W. (2020). Reasons associated with preservice teachers' intention to use immersive virtual reality in education. *British Journal of Educational Technology*, 51(6), 2214–2232.
- Carlsmith, J. M. (1962). Performance expectancy as a determinant of actual performance. *The Journal of Abnormal and Social Psychology*, 65(3), 178–182
- Chen, M. F. (2016). Extending the planned behavior model theory to explain people's energy savings and carbon reduction behavioral intentions to mitigate climate change in Taiwan—moral obligation matters. *Journal of Cleaner Production*, 112, 1746–1753.
- Cheung, C. M. K., Chan, G. W. W., & Limayem, M. (2008). A critical review of online consumer behavior. *Contemporary Research in E-Branding*, 3(December), 262–279.
- Chin, W. W. & Todd, P. A. (1995). On the use, usefulness, and ease of use of structural equation modeling in MIS research: A note of caution. *MIS Quarterly: Management Information Systems*, 19(2), 237–246.
- Cooper, D. R., & Schindler, P. S. (2006). *Marketing research*. New York: McGraw-Hill/Irwin.
- Farooq, M. S., Salam, M., Jaafar, N., Fayolle, A., Ayupp, K., Radovic-Markovic, M., & Sajid, A. (2017). Acceptance and Use of Lecture Capture System (LCS) in Executive Business Studies: Extending UTAUT2. *Interactive Technology and Smart Education*, 14(4), 329–348
- Gaitan, J. A., Peral, B. P., & Jeronimo, M. A. (2015). Elderly and Internet Banking: An Application of UTAUT2. *Journal of Internet Banking and Commerce*, 20(1), 1–23.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3),
- Jaradat, M. R. M. & Rababaa, M. S. Al. (2013). Assessing Key Factors that Influence on the Acceptance of Mobile Commerce Based on Modified UTAUT. *International Journal of Business and Management*, 8(23), 102–112.
- Jewer, J. (2018). Patients' intention to use online postings of ED wait times: A modified UTAUT model. *International Journal of Medical Informatics*, 112, 34–39.
- Juaneda-Ayensa, E., Mosquera, A., & Sierra Murillo, Y. (2016). Omnichannel customer behavior: key drivers of technology acceptance and use and their effects on purchase intention. *Frontiers in Psychology*, 7, 1117.
- Kunz, R. E. & Santomier, J. P. (2019). Sport content and virtual reality technology acceptance. *Sport, Business and Management: An International Journal*, 10(1), 83–103.
- Kwateng, K. O., Atiemo, K. A. O., & Appiah, C. (2019). Acceptance and use of mobile banking: an application of UTAUT2. *Journal of Enterprise Information Management*, 32(1), 118–151.
- Law, M. (2020). Continuance intention to use Facebook: understanding the roles of attitude and habit. *Young Consumers*, 21(3), 319–333
- Limayem, M., Hirt, S. G., & Cheung, C. M. K. (2007). How habit limits the predictive power of intention. *JSTOR*, 14(2), 1–14.
- Mardjo, A. (2018). Exploring Facebook users' willingness to accept f-commerce using the integrated unified theory of acceptance and use of technology 2 (UTAUT2), trust and risk under the moderating role of age and gender Literature review. *UTCC International Journal of Business and Economics (UTCC IJBE)*, 10(2), 139–166.
- Morosan, C. & Defranco, A. (2016). International Journal of Hospitality Management It's about time: Revisiting UTAUT2 to examine consumers' intentions to use NFC mobile payments in hotels. *International Journal of Hospitality Management*, 53, 17–29.
- Moorthy, K., T'ing, L. C., Na, S. A., Ching, C. T., Loong, L. Y., Xian, L. S., & Ling, T. W. (2018). Corporate image no longer leads to customer

- satisfaction and loyalty: a Malaysian perspective. *International Journal of Law and Management*, 60(4), 934-952
- Nofadhila, A., Prasetyo, A., & Sofyan, E. (2018). The Consumer Acceptance Of Traveloka Mobile App Affects Behavioral Intention : Analyzing 7 Factors Of Modified Utaut2 (Study Case In Indonesia). *E-Proceeding of Management*, 5(1), 874-883.
- Oliveira, T. & Martins, M. F. (2010). Information technology adoption models at Firm Level: Review of the literature. *4th European Conference on Information Management and Evaluation, ECIME 2010, May 2014*, 312-322.
- Oliveira, T. & Tam, C. (2016). Performance impact of mobile banking: Using the task-technology fit (TTF) approach. *International Journal of Bank Marketing*, 34(4), 434-457.
- Porral, C.-C. & Sanchez, R.-P. (2019). Generational differences in technology behaviour: comparing millennials and Generation X. *Kybernetes*, 49(11), 2755-2772
- Prasarry, Y. (2015). Factors Affecting the Adoption of Mobile Commerce (A Study on SMEs in Malang). *European Journal of Business and Management*, 7(2), 30-35.
- Prensky, M. (2001). Digital Natives, Digital Immigrants Part 2: Do They Really Think Differently? *On the Horizon*, 9(6), 1-6.
- Raza, S. A., Shah, N., & Ali, M. (2018). Acceptance of mobile banking in Islamic banks: evidence from modified UTAUT model. *Journal of Islamic Marketing*, 10(1), 357-376
- Shaw, N. & Sergueeva, K. (2019). International Journal of Information Management The non-monetary benefits of mobile commerce: Extending UTAUT2 with perceived value. *International Journal of Information Management*, 45(December 2017), 44-55.
- Tak, P. & Panwar, S. (2016). Using UTAUT2 Model to Predict Mobile App-Based Shopping: Evidence from India. *Journal of Indian Business Research*, 9(3), 248-264.
- Tam, C. & Oliveira, T. (2016). Understanding the Impact of M-Banking on Individual Performance: DeLone & McLean and TTF Perspective. *Computers in Human Behavior*, 61, 233-244.
- Tandon, U., Kiran, R., & Sah, A. N. (2016). Understanding Online Shopping Adoption in India: Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) With Perceived Risk Application. *Service Science*, 8(4), 420-437.
- Thong, J. Y., Hong, S. J., & Tam, K. Y. (2006). The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *International Journal of Human-Computer Studies*, 64(9), 799-810.
- Thongsri, N., Shen, L., & Bao, Y. (2019). Investigating factors affecting learner's perception toward online learning: evidence from ClassStart application in Thailand. *Behaviour and Information Technology*, 38(12), 1243-1258.
- Turban, E., King, D., Lee, J. K., Liang, T. P., & Turban, D. C. (2015). *Business-to-Business E-Commerce*. Electronic Commerce. Springer Texts in Business and Economics. Springer, Cham.
- Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, 695-704.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, 27(3), 425-478.
- Venkatesh, V., Thong, J. Y. ., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending The Unified Theory of Acceptance and Use of Technology. *Mis Quarterly*, 36(1), 157-178.
- Wang, H., Tao, D., Yu, N., & Qu, X. (2020). Understanding consumer acceptance of healthcare wearable devices: An integrated model of UTAUT and TTF. *International Journal of Medical Informatics*, 139, 104156.
- Yu, C. S. (2012). Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research*, 13(2), 104. 104-122.
- Yusliansyah, S. (2017). Adoption factors of online-web railway ticket reservation service (A case from Indonesia). In *2017 5th International Conference on Information and Communication Technology (ICoICT7)* (pp. 1-6). IEEE.
- Zhou, M., Zhao, L., Kong, N., Campy, K. S., Xu, G., Zhu, G., ... & Wang, S. (2020). Understanding consumers' behavior to adopt self-service parcel services for last-mile delivery. *Journal of Retailing and Consumer Services*, 52, 101911.