

The Impact of Performance Expectancy, Effort Expectancy, Habit, and Price Value on The Behavioral Intention of Tokopedia Users in Jakarta

Odelia Odelia¹ Tommy Setiawan Ruslim^{1*}

¹*Faculty of Economics and Business, Universitas Tarumanagara, Jakarta 11470, Indonesia*

**Corresponding author. Email: tommyr@fe.untar.ac.id*

Submitted: June 2022, Revised: November 2022, Accepted: February 2023

ABSTRACT

The development of increasingly advanced technology now has a big impact and greatly affects human activities that make human life easier, one of which is the online shopping application at Tokopedia. The focus on this study is to determine the effect of performance expectations, effort expectations, habit, and price value on the behavioral intention of the Tokopedia application in Jakarta. This study used 200 samples with purposive sampling method, namely those using the Tokopedia application in Jakarta with ages above 20 years which was carried out in the form of google form. The results is all variables have a positive effect on the behavioral intention of Tokopedia users except for the performance expectation variable which not have a significant effect on the behavioral intention of Tokopedia users. In this study, it was found that the variable that had the most influence on behavioral intentions was habit.

Keywords: *Performance, effort, habit, price value, intention*

1. INTRODUCTION

Places to shop through e-commerce are no stranger to the people of Indonesia and are widely known among young people. As for the types of online marketplaces that are well known in Indonesia, such as Shopee, Tokopedia, Bukalapak, Blibli, Zalora, Lazada, Olx, and others. One of the online marketplaces that many people know about in Indonesian society is the Tokopedia application but Tokopedia is still unable to compete with the Shopee and Lazada applications, it is known from the APJII online marketplace data [1], which is in the first level, namely the Shopee application at 27.4%, followed by Lazada is 14.2% and Tokopedia is the third rank with a percentage of 5.2% and it is also known that there are still many internet users who have never shopped online as much as 43.2%. This shows that the interest of shopping application users is still not high enough.

According to Venkatesh et al. [2] it is known that performance expectations are expected where individuals believe that when using a system can help them get usefulness in real life and on business expectations which are expected to make it easier for someone when using a technological system. The greater a person's expectations, the higher their interest in using technology. According to Ye & Potter [3] habits affect behavior in the future when the behavior is used to it and the price value affects behavioral intentions if users feel the benefits obtained from technology are greater according to Venkatesh et al. [4]

Therefore, this study wanted to find out: the effect of performance expectancy, effort expectancy effect, habit and price value affect the behavioral intention of Tokopedia Jakarta users.

This study follows the theory of UTAUT2, this theory is a theoretical model from TAM which is a model that is often adopted and influential in research on users of information technology. This theory explains that the acceptance of a technology in terms of user intentions is getting better with a percentage of 56% to 74%. Acceptance factors such as user behavior from 40% to 52% Venkatesh et al. [4]

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The variables of performance expectancy (PE), effort expectancy (EE), habit (HA) and price value (PV) have been founded to have a positive effect on behavioral intention (BI) by previous researchers. This study uses the UTAUT2 theory to predict the dependent variable. The dependent variable of this study is BI on the Tokopedia application users. The constructs that may influence behavioral intention (BI) are described below.

2.1. Behavioral Intention

BI can be seen from the level of willingness or intention of the user to use the system continuously. According to Schiffman & Kanuk [5] behavioral intention determines that customers will use certain activities in the future. There are several indicators of behavioral intention, namely the intention to use in the future, the intention to continue to use a system in everyday life, and plan as often as possible to use a system according to Venkatesh et al [4].

2.2. Performance Expectancy

PE has defined as it is the degree of believes that the job performance will improve by using innovative technologies. [2].

Research by [6] examines "Using the UTAUT, personal innovativeness and perceived financial cost to examine student's intention to use E-learning" can be seen from the results of this study have significant results between performance expectancy and behavioral intention.

If an activity that will be carried out by users is user expectations or performance expectancy which has things that are beneficial and beneficial for users, they will continue to use the system in the future where it does not disappoint user expectations.

Venkatesh et al. [7] constructs on PE can also take the form of (relative advantage), (outcome expectation), (perceived usefulness), (job-fit), (extrinsic motivation). With positive responses about what users do by performance expectations, there will be an intention for users to use the system continuously.

H1: PE has a positive effect on the BI.

2.3. Effort Expectancy

The level of convenience for users can reduce the effort of individuals both in terms of their time and energy in knowing the performance of transactions on a technology. According to [2] define EE is the level of easiness related while using any system. There are constructs on complexity, perceived ease of use, namely, ease of use, effort expectancy

Research by Reyes-Mercado [8] with the title under study, namely "Adoption of fitness wearables" which is known that this study provides positive and significant results between effort expectancy and behavioral intention.

A positive attitude towards users will also arise if the effort or effort expectancy made by the user turns out to make it easier for them to use the system, then users will still choose a technology that they consider easier to use because many users now do not want to use a system that makes it difficult for work.

H2: EE has a positive effect on the BI.

2.4. Habit

Users who are accustomed to using a system can be said that the action has become a routine activity without any conscious decision. According to [9], habit is the extent to which people tend to perform behaviors automatically.

Research conducted by Tak & Panwar. [10] entitled use UTAUT2 model to predict mobile app is known to have positive and significant results on user behavioral intentions in using mobile applications for shopping.

Changes in user outcomes are followed by user perceptions of comfort, familiarity, and user engagement as indicated by expectancy confirmation theory. Habit is closely related to automatic behavior that is formed in individuals based on habits, dependence, necessity, and nature by Venkatesh et al. [4]

H3: HA has a positive effect on the BI.

2.5. Price Value

The PV is based on the user's cognitive considerations between the benefits obtained from the system and the monetary costs that have been incurred in using the system [4].

According to [11], PV is defined as the customers' cognitive trade-off between the perceived benefits of the monetary and the applications. The research proposed by Andrianto [12] which has the title factors that influence BI to use digital wallet applications using the UTAUT2 model shows that there are positive and significant results between price value and behavioral intention.

There are some indicators of price value mobile internet is reasonably price value, at the current price, mobile internet is a good value for the money provides a good value. With the price offered, if the user feels it is more economical or profitable for them, then this is an important thing for someone to make a transaction.

H4: PV has a positive and significant effect on the BI.

3. FRAMEWORK OF THIS STUDY

After a review of literature, which explains the relationship between variables in an information technology system, the researchers developed the model. Figure 1 shows the effect of PE, EE, HA, and PV on the users' behavior to with concerning use mobile application of Tokopedia in Jakarta.

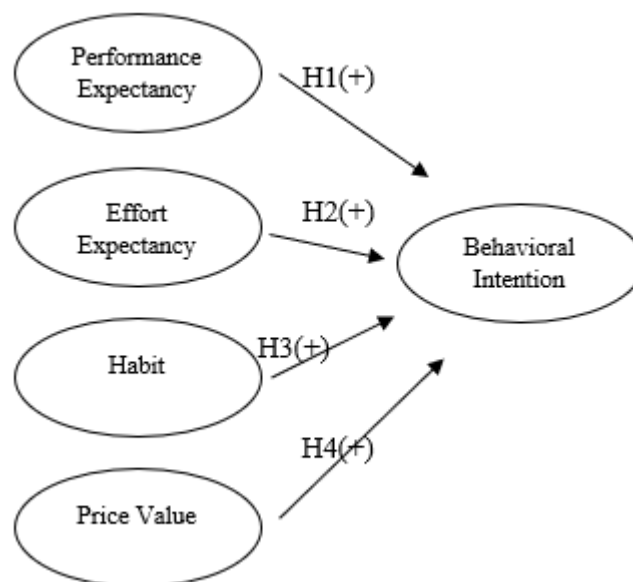


Figure 1 The Conceptual Framework

4. RESEARCH METHODOLOGY

This research is a type of descriptive research that aims to find out what happened in the current situation being studied. According to Arikunto [13] descriptive research is research to analyze situations, conditions and others whose results will be made in the form of research reports. The

approach used is quantitative and uses the survey method by distributing questionnaires to users of the Tokopedia application which is assessed on the likert scale. The sampling technique used is purposive sampling to someone who has used the Tokopedia application in Jakarta who is over 20 years old.

4.1. Data Collection

The population of this study is individuals who have used Tokopedia in Jakarta. 229 questionnaires have been collected, but only 200 respondents were studied because 29 respondents did not meet the criteria of this study. From the 200 respondents above, the respondents who participated the most in this study were 51.5% female and the remaining 48.5% were male and the most dominant age in filling out this questionnaire was at the age of 20 -30 years. Most of those who participated were still in high school or the equivalent as much as 58.5% and those who chose S1 were 38% and 40% had used the Tokopedia application for 1-2 years.

4.2. Data Analysis Technique

The process in this study using research methods that have been determined is to use data analysis techniques PLS-SEM which consists of the outer model consists of validity and reliability tests and the inner model consists of the R^2 , F^2 , Q^2 , Goodness-of-Fit (GoF) analysis, and hypothesis testing analysis.

5. RESULTS & DISCUSSION

To test the validity and reliability of the data using the outer model. Validity test serves to test an instrument to find out whether the instrument that has been used is valid or not. The validity analysis using the SEM technique is divided into 2, namely convergent validity and discriminant validity. Where convergent validity serves to explain the validity of each bond between the indicator and its latent variable and discriminant validity to determine if each concept of the latent model is not the same as other variables. Convergent validity is known to consist of the AVE value which will be said to be valid if the AVE value is greater than 0.5 (> 0.5) according to Hair et al. [14] and the desired loading factor value is greater than 0, 7 (> 0.7) on the latent variable with each indicator according to Widarjono [15]. And the discriminant validity consists of cross loading. Where the value of cross loading must be greater than the value of cross loading on other variables.

Reliability analysis with SEM technique is divided into 2, namely Cronbach's alpha and composite reliability. According to Hair et al. [14] Where it can be said high reliability if the composite reliability value produces a value greater than 0.7 (> 0.7) and is strengthened by the presence of Cronbach's alpha with the desired value $> 0, 7$. The results of the outer model testing in this study are presented in Table 1, Table 2, Table 3, and Table 4.

Table 1 Convergent Validity – AVE

Variable	AVE
Behavioral Intention	0.781
Effort Expectancy	0.768
Habit	0.768
Performance Expectancy	0.775
Price Value	0.784

Table 2 Convergent Validity – Loading Factors

Variables	Indicators	Loading Factors
PE	PEEX1	.845
	PEEX2	.864
	PEEX3	.891
	PEEX4	.891
	PEEX5	.910
EE	EFEX1	.869
	EFEX2	.892
	EFEX3	.876
	EFEX4	.870
HA	HA1	.870
	HA2	.907
	HA3	.891
	HA4	.883
	HA5	.878
PV	PEVA1	.886
	PEVA2	.889
	PEVA3	.881
	PEVA4	.886
BI	BEIN1	.891
	BEIN2	.885
	BEIN3	.852
	BEIN4	.884
	BEIN5	.905

Table 3 Discriminant Validity – Cross Loading

	BI	EE	HA	PE	PV
BI1	0.891	0.681	0.779	0.723	0.707
BI2	0.885	0.675	0.729	0.698	0.714
BI3	0.852	0.722	0.683	0.714	0.645
BI4	0.884	0.647	0.735	0.659	0.692
BI5	0.905	0.657	0.774	0.705	0.676
EE1	0.681	0.869	0.602	0.747	0.600
EE2	0.704	0.892	0.647	0.795	0.560
EE3	0.665	0.876	0.539	0.778	0.559
EE4	0.629	0.870	0.598	0.710	0.592
HA1	0.745	0.648	0.870	0.710	0.661
HA2	0.747	0.680	0.907	0.698	0.673
HA3	0.783	0.666	0.891	0.724	0.644
HA4	0.649	0.418	0.883	0.513	0.659
HA5	0.739	0.549	0.878	0.653	0.700
PE1	0.606	0.721	0.547	0.845	0.558
PE2	0.654	0.779	0.602	0.864	0.564
PE3	0.738	0.757	0.738	0.891	0.613
PE4	0.746	0.755	0.734	0.891	0.630
PE5	0.728	0.798	0.687	0.910	0.587
PV1	0.693	0.540	0.694	0.596	0.886
PV2	0.668	0.597	0.694	0.590	0.889
PV3	0.710	0.604	0.618	0.593	0.881
PV4	0.683	0.592	0.690	0.599	0.886

Table 4 Outer Model Assessment – Reliability

Variables	Cronbach's Alpha	Composite Reliability	Conclusions
BI	0.930	0.947	Reliable
EE	0.900	0.930	
HA	0.924	0.943	
PE	0.928	0.945	
PV	0.908	0.936	

It is known that the results of the convergent validity test of the AVE results for each variable have a value greater than 0.5. It was concluded that the five variables had met the convergent validity analysis as measured by the AVE value and each variable indicator in this study had a value above 0.7, which means that all variables were declared to have met the requirements of the convergent validity analysis as measured by the loading factor value.

The results of the discriminant validity analysis by the cross-loading test it can be concluded that the indicators in each variable have a greater value than other variables. Then the results of the cross loading can be declared valid.

The results of the value on Cronbach's Alpha and Composite Reliability which have a value above 0.7 on each variable can be declared reliable for each variable.

From the results of the validity and reliability tests, it is said that the indicators on each variable are declared valid and reliable.

After the outer model test, then the next step is the inner model test. The inner model consists of the R^2 , F^2 , Q^2 , and hypothesis testing analysis. The inner model explains the relationship between variables in this study and also knows whether the variables are supported or not on the hypothesis. According to Hair et al. [14] on the path coefficient test, it is known that the value of the t-statistic must be > 1.96 and there is a requirement for the P-value with a maximum value of 5% alpha ($\alpha = 0.005$) or the with a P-value less than 0.05 in each variable, then the P-value can be declared significant

The results of testing the inner model and hypotheses are presented in Table 5, Table 6, Table 7 and Table 8.

Table 5 R-Squared Results

Variable	R-Squared
Behavioral Intention	0.798

Table 6 F^2 Results

Variable	Predictive Relevance (Q^2)
Effort expectancy	0.049
Habit	0.258
Performance expectancy	0.023
Price value	0.102

Table 7 Predictive Relevance Results

Variable	Predictive Relevance (Q^2)
Behavioral Intention	0.609

Table 8 Path Coefficient and Hypotheses Testing Results

Variable	Path Coefficients	t-Statistics	p-Values	Conclusion
PE -> BI	0.609	1.675	0.095	Not Supported
EE -> BI	0.203	2.489	0.013	Supported
Habit -> BI	0.409	5.829	0.000	
PV -> BI	0.231	3.656	0.000	

The results of the inner model testing show that the coefficient-of-determination test (R^2) on the BI variable is 0.798. This shows that 79.8% of the BI variable can be explained by the PE, EE, HA and PV variables, while the remaining 20.2% can be explained by other variables.

The results of the F2 test on the habit variable have a large influence on BI, namely 0.258. Furthermore, that which has a moderate effect of 0.102 on the price value variable on BI and which has a small effect of 0.049 on the EE and 0.023 on the PE variable on BI.

In addition, the value of predictive relevance (Q^2) is 0.609 where the value is greater than 0 which means that the construct linkage of the variables studied in this study is considered relevant.

Based on the results of hypothesis testing, it can be seen, H1 is not supported. It is known that the PE variable has a PE on the BI of Tokopedia users in Jakarta. But the value generated from the T-Statistic is 1.675 where the value is below the limit of the T-Statistic value of 1.96 and the P-Value value on the PE variable is 0.095 where the value is greater than the maximum value limit on the P-Value which is 0.05 which means the value is not significant. So that the test on the first hypothesis is concluded not supported. This study contradicts research by Rahman et al. [16] that PE has a positive and significant effect on BI, which is known that PE can increase BI to use information technology systems because there are benefits expected by users from the system seems to be more effective in carrying out certain activities or facilitating their performance. The results are supported Wijaya & Handriyanti [17] that PE is not significant on BI.

H2 is supported. The EE variable has a positive effect on BI and is significant. It is known that the value of the T-Statistic is 2.489, where the value is above 1.96 and the value at the P-Value is below 0.05, which is 0.013. So that H2 is concluded to be supported. It can be concluded that EE is an important factor in the intentions of users of information technology systems when operating the Tokopedia application because they feel the ease and convenience of using the shopping application on Tokopedia. This is following research in Reyes-Mercado. [8] and research Gupta & Arora [18] which said that application users would be comfortable using it when users did not experience difficulties or were not troublesome in operating the system on the application.

H3 is supported. The HA variable has a positive effect and is significant on BI The value on the T-Statistic of the HA is 5.828, which means the value is above 1.96 and the value of the HA variable on the P-Value is 0.000, which means the value is lower than 0.05. So that the HA variable is declared significant. Then H3 is concluded to be supported. It can be concluded from the results of this study that the Tokopedia application is their top priority in online shopping because they are used to shopping through Tokopedia. because many people today have formed habits in using the internet daily so this is also the BI in their HA of using online applications for shopping. This is supported by previous research by Tak & Panwar. [10] and Merhi et al. [19] where habits are based on repeated experiences by users when using the system and it will become a person's habit. routinely and spontaneously when they want to shop through online applications.

H4 is supported. The PV variable has a T-Statistic value above 1.96 which is 3.656 and a P-Value value of 0.000 where the value is below 0.05. Then the PV variable is declared to have a positive and significant effect on BI. So that H4 is concluded to be supported. Based on the results of the respondents in this study, Tokopedia application users feel that shopping through Tokopedia is more profitable than other applications, and the price given is quite cheap because they get more consideration between the benefits obtained from Tokopedia application users or not with the costs that have been incurred. This is following the researcher by Andrianto. [12]

6. CONCLUSIONS & IMPLICATIONS

From the results of the research data analysis, the PE can't predict BI, but EE, HA, and PV can predict BI, it has a positive effect on the BI of Tokopedia users in Jakarta.

The HA variable that has the most influence on the BI of Tokopedia application users in Jakarta. HA are based on repeated experiences by users when using the system and this will become a habit of a person routinely and spontaneously when they want to shop through online applications. Users will continue to use the application if they have had a good experience with a system then this can increase user intentions for the Tokopedia application. then the second is the PV that affects BI. Which, Tokopedia application users feels that shopping through Tokopedia is more profitable than other

applications, and the price given is quite cheap because they get more consideration between profit obtained from users of the Tokopedia application is comparable or not with the costs that have been incurred. And lastly, EE is a factor that are important to the intentions of users of information technology systems when operate the Tokopedia application by users because they feel the ease and comfort in using the application shop on Tokopedia. application users will be comfortable using it when users do not find it difficult or troublesome in operate the system on the application.

7. LIMITATIONS & FUTURE RESEARCH

In this study, the variables used to predict the behavioral intention of Tokopedia users in Jakarta were only limited to PE, EE, HA and PV. Meanwhile, many other independent variables can predict BI. In addition, due to the limited time of the study, the sample collected was only 200 respondents so they did not represent the users of the Tokopedia application. It is hoped that further researchers will increase the number of respondents studied because there are so many Tokopedia to support previous research.

REFERENCES

- [1] "Laporan survei internet APJII 2019 - 2020 (Q2)," [Online]. Available: <https://www.apjii.or.id/content/read/39/521/Laporan-Survei-Internet- APJII-2019-2020-Q2>.
- [2] V. Venkatesh, M. G. Morris, G. B. Davis and F. D. Davis, "User Acceptance of Information Technology: Toward a Unified View," *MIS Quarterly*, vol. 27, no. 3, pp. 425-478, 2003. DOI: 10.2307/30036540.
- [3] C. Ye and R. Potter, "The Role of Habit in Post-Adoption Switching of Personal Information Technologies: An Empirical Investigation," *Communications of the Association for Information System*, vol. 28, no. 1, pp. 425-478, 2011. DOI: 10.17705/1CAIS.02835.
- [4] V. Venkatesh, J. Y. L. Thong and X. Xu, "Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology," *MIS quarterly*, vol. 36, no. 1, pp. 157-178, 2012. DOI: 10.2307/41410412.
- [5] L. Schiffman and L. L. Kanuk, *Perilaku Konsumen*, Edisi Ketujuh, Jakarta: Indeks, 2008.
- [6] K. K. Twum, D. Ofori, G. Keney and B. K. Yeboah, "Using the UTAUT, personal innovativeness and perceived financial cost to examine student's intention to use E-learning," *Journal of Science and Technology Policy Management* , 2021. DOI: 10.1108/JSTPM-12-2020-0168.
- [7] V. Venkatesh, M. G. Morris, G. B. davis and f. D. Davis, "User acceptance of information technology: toward a unified view," *MIS Quarterly*, vol. 27, no. 3, pp. 425-478, 2003. DOI: 10.2307/30036540.
- [8] P. Reyes-Mercado, "Adoption of fitness wearables: Insights from partial least squares and qualitative comparative analysis," *Journal of Systems and Information Technology*, vol. 20, no. 1, pp. 103-127, 2018. DOI: 10.1108/JSIT-04-2017-0025.
- [9] M. Limayem, S. G. Hirt and C. M. K. Cheung, "How habit limits the predictive power of intention: The case of information systems continuance," *MIS quarterly*, vol. 31, no. 4, pp. 705-737., 2007. DOI: 10.2307/25148817.

- [10] P. Tak and S. Panwar, "Using UTAUT 2 model to predict mobile app based shopping: evidences from India," *Journal of Indian Business Research*, vol. 9, no. 3, pp. 248-264, 2017. DOI: 10.1108/JIBR-11-2016-0132.
- [11] W. B. Dodds, K. B. Monroe and D. Grewal, "Effects of price, brand, and store information on buyers' product evaluations," *ournal of marketing research*, vol. 28, no. 3, pp. 307-319, 1991. DOI: 10.1177/002224379102800305.
- [12] A. Andrianto, "faktor yang mempengaruhi behavio intention untuk penggunaan aplikasi dompet digital menggunakan model UTAUT2," *Jurnal Ilmiah Ekonomi Bisnis*, vol. 25, no. 2, pp. 111-122, 2020.
- [13] S. Arikunto, *Prosedur Penelitian: Suatu Pendekatan Praktik*, Jakarta: Rineke Cipta, 2010.
- [14] J. Hair, G. T. M. Hult, C. M. Ringle and M. Sarstedt, *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. 2nd edition, Los Angeles: Sage, 2017.
- [15] A. P. D. Widarjono, *Analisis multivariat terapan*, Yogyakarta: UPP STIM YKPN, 2015.
- [16] M. S. Rahman, S. Das, G. M. S. Hossain and T. Tajrin, "Teenager's behavioral intention towards wearable technologies and intention to recommend others: an empirical study in Bangladesh," *Journal of Science and Technology Policy Management*, 2020. DOI: 10.1108/JSTPM-05-2020-0088
- [17] K. Wijaya and E. Handriyantini, "analisis faktor yang mempengaruhi behavioral intention pada online marketplace menggunakan model UTAUT(STUDI KASUS : SHOPEE)," *Seminar Nasional Teknologi Informasi dan Komunikasi STI & K*, vol. 4, no. 1, pp. 323-332, 2020. DOI: 10.32409/jikstik.4.1.321
- [18] K. Gupta and N. Arora, "Investigating consumer intention to accept mobile payment systems through unified theory of acceptance model: An Indian perspective," *South Asian Journal of Business Studies*, vol. 9, no. 1, pp. 84-114, 2019. DOI: 10.1108/SAJBS-03-2019-0037.
- [19] M. Merhi, K. Hone, A. Tarhini and N. Ameen, "An empirical examination of the moderating role of age and gender in consumer mobile banking use: a cross-national, quantitative study," *Journal of Enterprise Information Management*, vol. 34, no. 4, pp. 1144-1168, 2020. DOI: 10.1108/JEIM-03-2020-0092.