www.bircu-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

Implementation of the UTAUT2 Model with Gamification and Its Influence on Behavioral Intentions and Behavior of Use of M-Banking

Kefas Anugrah[1], Josua Partogi Parasian Pasaribu[2], Christina Dwi Astuti[3]
[1,2,3]*Faculty of Economics and Business, Universitas Trisakti, Indonesia*
kefas023002004536@std.trisakti.ac.id, josua023002018040@std.trisakti.ac.id, cdwi_astuti@trisakti.ac.id

Abstract

This study aims to determine how the influence of the UTAUT2 model along with gamification on behavioral intentions and behavior in using m-banking. The independent variables in this study are performance expectancy (PE), effort expectancy (EE), social influence (SI), hedonic motivation (HM), perceived value (PV), gamification (GM), facilitating conditions (FC), habit (HB). The dependent variables in this study are behavioral intentions (BI) and use behavior (UB). The sample of this research is the community, users, and/or customers who use m-banking services in the Jakarta area. The sample of this study amounted to 200 respondents. The research method used is quantitative descriptive analysis. The results of this study indicate that perceived value (PV) and habit (HB) have a positive influence on behavioral intentions (BI). Then facilitating conditions (FC), habit (HB), and behavioral intentions (BI) have a positive influence on use behavior (UB). Meanwhile, performance expectancy (PE), effort expectancy (EE), social influence (SI), hedonic motivation (HM), gamification (GM), and facilitating conditions (FC) have no influence on behavioral intentions (BI).

Keywords
behavioral intentions; use behavior; UTAUT2; gamification

I. Introduction

In the era of globalization, the development of information technology encourages the emergence of business opportunities because it is considered more efficient and effective. Information technology is implemented to support business processes, including the banking business. With the development of this technology, banks are required to innovate services provided to customers, one of which is m-banking. Mobile banking is a service provided by banks to support various customer transactions such as transfers, balance checks, and bill payments without having to come to the bank or automatic teller machine (ATM). Various advantages that can be obtained from the use of m-banking are transactions can be done anywhere and anytime and can be used via smartphones, tablets, mobile laptop devices, and other mobile devices.

Table 1. Number of ATM Machines

Indicator	2018	2019	2020	2021
Number of ATMs (in units)	106901	106,649	104,654	102.765

(Source: https://www.bi.go.id/id/statistik/ekonomi-keuangan/spip/Default.aspx)

DOI: *https://doi.org/10.33258/birci.v5i3.6602*

Digitalization in the banking industry is increasing and causing changes in the nature and behavior of the community, customers, and/or users in the country. Based on data on the Bank Indonesia (BI) website as of January 2022, the number of automatic teller machines (ATM) from year to year always decreases, where in 2018, the number of ATM machines was 106,901. Then in 2019 it became 106,649. The decline again occurred in 2020 and 2021, namely to 104,654 and 102,765. As for the data contained in the annual report (AR) of Bank Indonesia (BI) in 2021, there is a statement that the value of payment transactions using electronic money and digital banking has experienced a fairly high growth, namely 58.7% and 42.9% year on year (yoy). This can happen due to the increasing consumerism of the public regarding acceptance and preference for online shopping, as well as the expansion and convenience of digital payment systems.

The theory of acceptance and use of technology (UTAUT) is a theory that explains the factors that influence technology adoption that introduces four constructs (Venkatesh et al., 2003), namely performance expectancy, effort expectancy, and social influence (social influence), and facilitating conditions. Then the UTAUT model is continued to the UTAUT2 model (Venkatesh et al., 2012) by adding three constructs, namely hedonic motivation, perceived value, and habit, so that the UTAUT2 model has seven constructs or variables. This theory is tested in order to determine its effect on behavioral intentions that end in use behavior.

Research conducted by Susilowati (2021), of the seven UTAUT2 factors, namely habit, hedonic motivation, and facilitating conditions) has a positive effect on behavioral intentions, while the other four factors have no effect on behavioral intentions. While the research conducted by Widyaningrum (2020), the seven factors or constructs contained in the UTAUT2 model as a whole have a positive effect on behavioral intentions. The supporting factor of behavioral intention to use m-banking is gamification. The definition of gamification itself is the use and application of game elements into non-game contexts (Eisingerich et al., 2019). In general, gamification aims to increase customer engagement and brand loyalty, as well as as a means of providing an interesting experience for customers.

Research conducted by era (2020) says that the elements of the game that are included have an insignificant effect on the level of adoption or acceptance of a technology such as the internet or m-banking. Then the results of Chaouali's research (2019) found that design aesthetics had a positive effect on functional, emotional, social, and epistemic values. This value dimension ultimately affects the intention and use of the internet or m-banking. To address the challenges and harness the opportunities offered by digital technologies during this crisis, participants shared a concern to recognize and protect digital rights in particular around the areas of privacy and inclusion (Hariati, 2021). This can be interpreted as internet users in Indonesia belongs to the category of digital natives group (Gunawan, 2020).

This research is a combination of previous research conducted by Widyaningrum (2020) and Taruli et al (2020). This study not only discusses the relationship between the UTAUT2 model and intention to use behavior, but is more specific, namely to the end of use (use behavior). Then added with another factor, namely gamification.

II. Research Method

The type of research in this study is quantitative, where this study analyzes the causes and effects of the independent variable on the dependent variable. The data used is

primary data, where the data is obtained by distributing online questionnaires. The sample used in this study is the community, users, and/or customers who have the main criteria, namely using m-banking services in the Jakarta area. The sampling technique in this study used a purposive sampling method.

The measurement of the variables in this study uses a Likert scale, where the Likert scale itself is a measurement used to measure opinions, points of view, and/or attitudes towards the actions of individuals or groups of individuals regarding social phenomena (Sugiyono, 2018: 93).

III. Discussion

3.1 Results

a. Overview of Research Objects

The respondents used in this study are customers who use m-banking services in the Jakarta area. As for the questionnaires distributed as many as 208 and which can be processed as many as 200 respondents. Female respondents dominated in this study, amounting to 106 respondents. The age range of 20-24 years is the most common age range, which is 161 respondents. The majority of respondents have employment status as employees and the last education is diploma III, namely 106 and 80 respondents, respectively. BCA M-banking is the service most used by respondents, with 115 respondents.

b. Descriptive Statistics Test Results

Table 2. Descriptive statistics

Variable	N	Minimum	Maximum	Mode	mean	Std. Deviation
Performance Expectancy (PE)	200	5	20	5	18.33	1,957
Effort Expectancy (EE)	200	3	15	5	13.35	1,715
Social Influence (SI)	200	3	15	5	11.97	2,361
Hedonic Motivation (HM)	200	3	15	5	12.59	1,908
Perceived Value (PV)	200	4	15	5	13.26	1,735
Gamification (GM)	200	3	15	5	12.48	2,303
Facilicating Conditions (FC)	200	3	15	5	13.19	1,758
Habits (HB)	200	3	15	5	12.89	2.014
Behavioral Intentions (BI)	200	3	15	5	13.33	1,824
Use Behavior (UB)	200	3	15	5	13.46	1,829

Source: processed data (2022)

Based on the table above, the PE variable has a minimum value of 5 and a maximum of 20, while the mode has a value of 5. The standard deviation value of 1.957 is smaller than the average value of 18.33 which means that the data is homogeneous and it can be said that the data can represent the set data. The EE variable has a minimum value of 3 and a maximum of 215, while the mode has a value of 5. The standard deviation value of 1.715 is smaller than the average value of 13.35 which means the data is homogeneous and it can be said that the data can represent the data set. The SI variable has a minimum value of 3 and a maximum of 15, while the mode has a value of 5. The standard deviation value of 2.361 is smaller than the average value of 11.97 which means that the data is homogeneous

and it can be said that the data can represent the data set. The HM variable has a minimum value of 3 and a maximum of 15, while the mode has a value of 5.

c. Data Quality Test

1. Validity Test

Table 3. Validity Test

Variable	Number of Indicators	Sig	Information
Performance Expectancy	4 statement items	0.000	Valid
Effort Expectancy	3 statement items	0.000	Valid
Social Influence	3 statement items	0.000	Valid
Hedonic Motivation	3 statement items	0.000	Valid
Perceived Value	3 statement items	0.000	Valid
Gamification	3 statement items	0.000	Valid
Facilitating Conditions	3 statement items	0.000	Valid
Habit	3 statement items	0.000	Valid
Behavioral Intentions	3 statement items	0.000	Valid
Use Behavior	2 statement items	0.000	Valid

Source: processed data (2022)

Based on the test results above, all statements from 10 variables can be said to be valid, because the significance value is <0.05.

Based on the test results above, the Cronbach Coefficient Alpha value of all variables is > 0.6, which means that all variables in this study can be said to be reliable.

2. Hypothesis Testing

1. Multiple Regression Analysis Model 1

Table 4. Hypothesis Testing Model 1

Variable	Direction Prediction	Unstandardized Coefficients B	Sig. One Tailed	Conclusion
(Constant)		0.447	0.601	
Performance Expectancy (PE)	+	0.118	0.087	H1 rejected
Effort Expectancy (EE)	+	0.095	0.216	H2 rejected
Social Influence (SI)	+	0.020	0.656	H3 rejected
Hedonic Motivation (HM)	+	0.086	0.182	H4 rejected
Perceived Value (PV)	+	0.244	0.001	H5 accepted
Gamification (GM)	+	0.029	0.568	H6 rejected
Facilicating Conditions (FC)	+	0.131	0.062	H7a rejected
Habits (HB)	+	0.217	0.001	H8a accepted
Adjusted R Square			0.572	
F Uji test			0.000	Significantly influential

Source: processed data (2022)

***Behavioral Intentions* = 0.447 + 0.118 (PE) + 0.095 (EE) + 0.020 (SI) + 0.086 (HM) + 0.244 (PV) + 0.029 (GM) + 0.131 (FC) + 0.217 (HB)**

The equation of the results of multiple linear regression analysis in model 1 shows a constant coefficient value of 0.447, which means that if the value of PE, EE, SI, HM, PV, GM, FC, and HB is equal to 0, then the value of behavioral intentions is 0.047. Then if PE, EE, SI, HM, PV, GM, FC, AND HB increase by one unit, then the value of behavioral intentions will also increase by the constant value, namely 0.118, 0.095, 0.020, 0.086, 0.244, 0.029, 0.131 , 0.217.

2. Coefficient of Determination Test ($R^{2)}$ Model 1

Based on the coefficient of determination test table (R2) above, it is known that the value of the coefficient of determination (Adjusted R Square) is 0.572. This means that the independent variables contained in this study, namely PE, EE, SI, HM, PV, GM, FC, and HB have an influence on the dependent variable, namely BI by 0.572 or 57.2%, and the remaining 42.8 % is influenced by other variables outside this research.

3. F Test Model 1

The F test aims to determine whether the independent variables simultaneously have a significant effect on the dependent variable. Based on the F test table above, it is known that the significance value is 0.000. This states that the independent variables, namely PE, EE, SI, HM, PV, GM, FC, and HB simultaneously or simultaneously have an influence on the dependent variable, namely BI.

4. T-Test Model 1

Based on the t-test table above, it can be concluded that:

1. *Performance Expectancy (PE)* variable has a significance value of 0.087 > 0.05. This states that H0 fails to be rejected and Ha is rejected, which means that the *Performance Expectancy* (PE) variable has no effect on *Behavioral Intentions* (BI) or behavioral intentions.
2. *Effort Expectancy (EE)* variable has a significance value of 0.216 > 0.05. This states that H0 fails to be rejected and Ha is rejected, which means that the *Effort Expectancy* (PE) variable has no effect on *Behavioral Intenions* (BI) or behavioral intentions.
3. *Social Influence (SI)* variable has a significance value of 0.656 > 0.05. This states that H0 fails to be rejected and Ha is rejected, which means that the *Social Influence* (SI) variable has no effect on *Behavioral Intentions* (BI) or behavioral intentions.
4. *Hedonic Motivation (HM)* variable has a significance value of 0.182 > 0.05. This states that H0 failed to be rejected and Ha was rejected, which means that the *Hedonic Motivation* (HM) variable has no effect on *Behavioral Intenions* (BI) or behavioral intentions.
5. *Perceived Value (PV)* variable has a significance value of 0.001 <0.05. This states that H0 is rejected and Ha fails to be rejected, which means that the *Perceived Value* (PV) variable has a positive influence on *Behavioral Intentions* (BI) or behavioral intentions.
6. The gamification variable (GM) has a significance value of 0.568 > 0.05. This states that H0 fails to be rejected and Ha is rejected which means that the

gamification variable (GM) has no effect on *Behavioral Intenions* (BI) or behavioral intentions.

7. *Facilitating Conditions (FC)* variable has a significance value of 0.062 > 0.05. This states that H0 failed to be rejected and Ha was rejected, which means that the *Facilitating Conditions* (FC) variable has no effect on *Behavioral Intentions* (BI) or behavioral intentions.
8. *Habit* variable (HB) has a significance value of 0.001 < 0.05. This states that H0 is rejected and Ha fails to be rejected, which means that the variable *Habit* (HB) has a positive influence on *Behavioral Intenions* (BI) or behavioral intentions.

5. Multiple Regression Analysis Model 2

Table 8. Hypothesis Testing Model 2

Variable	Direction Prediction	Unstandardized Coefficients B	Sig. One Tailed	Conclusion
(Constant)		1,640	0.017	
Facilicating Conditions (FC)	+	0.217	0.000	H7b accepted
Habits (HB)	+	0.108	0.046	H8b accepted
Behavioral Intentions (BI)	+	0.568	0.000	H9 accepted
Adjusted R Square			0.620	62% able to explain the dependent variable
F Uji test			0.000	Significantly influential

Source: processed data (2022)

6. T-Test Model 2

Based on the t-test table above, it can be concluded that:

1. *Facilitating Conditions (FC)* variable has a significance value of 0.000 <0.05. This states that H0 is rejected and Ha fails to be rejected, which means that the *Facilitating Conditions* (FC) variable has a positive influence on *Use Behavior* (UB) or usage behavior.
2. *Habit* variable (HB) has a significance value of 0.046 <0.05. This states that H0 is rejected and Ha fails to be rejected, which means that the variable *Habit* (HB) has a positive influence on *Use Behavior* (UB) or usage behavior.
3. *Behavioral Intentions (BI)* variable has a significance value of 0.000 <0.05. This states that H0 is rejected and Ha fails to be rejected, which means that the *Behavioral Intentions* (BI) variable has a positive influence on *Use Behavior* (UB) or usage behavior.

3.2 Discussion

a. The Effect of Performance Expectancy on Behavioral Intentions

Based on the results of the hypothesis test, the performance expectancy variable has no effect on the behavioral intentions variable with a significance value of 0.087 > 0.05. So with this hypothesis 1 is rejected. The results of this study are not in line with the results of

research conducted by Farzin et al (2021) which states that performance expectancy has a positive influence on behavioral intentions. However, the results of this study are in line with the results of research conducted by Susilowati (2021) and Kwateng et al (2018) which state that performance expectations have no effect on behavioral intentions. This result is probably caused by the dominance of female respondents, then the age range of 20-24 years, where this age range is arguably the most productive age and tends to have a job status as a student who in fact is not too concerned and thinks about performance expectations or performance of m-banking. . Meanwhile, female respondents have a tendency to use various services related to ease of transaction, so m-banking is not the only service of concern for these respondents. This is what causes when m-banking offers an convenience related to productivity, the intentions of these people do not appear or it can be said that there is no effect of performance expectancy on behavioral intentions.

b. Effect of Effort Expectancy on Behavioral Intention

Based on the results of the hypothesis test, the effort expectancy variable has no effect on the behavioral intentions variable with a significance value of 0.216 > 0.05. So with this hypothesis 2 is rejected. The results of this study are not in line with the results of research conducted by Farzin et al (2021) which states that effort expectancy has a positive influence on behavioral intentions. However, the results of this study are in line with the results of research conducted by Ariyanto (2017) and Kwateng et al (2018) which state that effort expectancy has no effect on behavioral intentions. This result is probably due to the fact that the majority of respondents have an age range of 20-24 years, where this age range has more energy and time and a lot of time to find out, learn, and even master a technology related to digitization such as m-banking compared to other age ranges in this study. , so that the perceived convenience factor in using m-banking is not the only factor that is most considered. This is what causes when m-banking offers an convenience related to efficiency and effectiveness, the intentions of these people do not appear or it can be said that there is no effect of effort expectancy on behavioral intentions.

c. The Influence of Social Influence on Behavioral Intentions

Based on the results of the hypothesis test conducted, the social influence variable has no effect on the behavioral intentions variable with a significance value of 0.656 > 0.05. So with this hypothesis 3 is rejected. The results of this study are not in line with the results of research conducted by Farah et al (2018) which states that social influence has an influence on behavioral intentions. However, the results of this study are in line with the results of research conducted by Ariyanto (2017) and Kwateng et al (2018) which state that social influence has no effect on behavioral intentions. This result may be due to the fact that the majority of respondents have employment status as employees, where the employment status reflects that when someone enters a more professional world or the world of work, that person has a tendency to not listen, see, and pay attention to the understanding of a group of people or the surrounding environment. This means that when the person does not have the intention or want to use m-banking for banking purposes, even though a group of people or the surrounding environment validates the use of m-banking, that person will still have no intention or desire to use m-banking , and vice versa.

d. The Effect of Hedonic Motivation on Behavioral Intentions

Based on the results of the hypothesis test conducted, the hedonic motivation variable has no effect on the behavioral intentions variable with a significance value of 0.182 > 0.05. So with this hypothesis 4 is rejected. The results of this study are not in line

with the results of research conducted by Farah et al (2018) which states that hedonic motivation has a positive influence on behavioral intentions. However, the results of this study are in line with the results of research conducted by Kwateng et al (2018) and Thaker et al (2018) which state that hedonic motivation has no effect on behavioral intentions. This result is likely due to the fact that the majority of respondents have employment status as employees, where the job status reflects that when someone enters a more professional world or the world of work, that person has a tendency to not only see the level of pleasure they feel when using technology such as mobile phones banking, but there are other factors of concern such as the level of usefulness in certain cases that can be obtained by the user. This is an indication that although m-banking provides a sense of pleasure that can be seen from several factors and one of them is feeling like following the trend when using m-banking, the person still will not have the intention to use m-banking.

e. The Effect of Perceived Value on Behavioral Intentions

Based on the results of the hypothesis testing conducted, the perceived value variable has a positive influence on the behavioral intentions variable with a significance value of 0.001 <0.05. So with this hypothesis 5 is accepted. The results of this study are in line with the results of research conducted by Farzin et al (2021) which states that perceived value has a positive influence on behavioral intentions. In addition, the results of this study are also in line with the results of research conducted by Kwateng et al (2018) and Thaker et al (2018) which state that perceived value has a positive influence on behavioral intentions. This can happen because the perceived value itself is a comparison or tradeoff between the benefits and monetary costs attached to the use of technology such as m-banking. This means that respondents see that the many benefits provided by m-banking such as transfers, balance checks, and bill payments without having to come to the bank or automatic teller machine (ATM) is an indication that the costs or costs incurred are smaller than the benefits provided by the bank. M-banking itself.

f. Effect of Gamification on Behavioral Intention

Based on the results of the hypothesis testing conducted, the gamification variable has no effect on the behavioral intentions variable with a significance value of 0.568 > 0.05. So with this hypothesis 6 is rejected. The results of this study are not in line with the results of research conducted by Rahi & Ghani (2018) which states that gamification has a positive influence on behavioral intentions. However, the results of this study are in line with the results of research conducted by Pal et al (2021) which states that gamification has no effect on behavioral intentions. This result may be due to the fact that the majority of respondents use BCA m-banking, where BCA does not have a reward point feature that can later be exchanged and used for various purposes of the user. Different from BNI, BRI, BTN m-banking, and maybe some other m-banking which has a reward point feature when using m-banking by following the terms and conditions of each bank of course.

g. Effect of Facilitating Conditions on Behavioral Intentions

Based on the results of the hypothesis test conducted, the facilitating conditions variable has no effect on the behavioral intentions variable with a significance value of 0.062 > 0.05. So with this hypothesis 7a is rejected. The results of this study are not in line with the results of research conducted by Cera et al (2020) which states that facilitating conditions have a positive influence on behavioral intentions. However, the results of this study are in line with the results of research conducted by Farah et al (2018) and Kwateng et al (2018) which state that facilitating conditions have no effect on behavioral intentions.

This result may be due to the fact that the majority of respondents use BCA m-banking , where statements regarding the availability of assistance when the user encounters a problem related to m-banking on this indicator or dimension have the lowest score or in the sense that the respondent does not agree with this statement . This is an indication that when respondents have resources or facilities such as smartphones , internet connections, and even science, but when m-banking itself does not provide good service quality related to the problems complained of by users, it will lead to a tendency of no intention behavior to use m-banking .

h. Effect of Facilitating Conditions on Usage Behavior

Based on the results of hypothesis testing, the facilitating conditions variable has a positive influence on the use behavior variable with a significance value of 0.000 <0.05. So with this hypothesis 7b is accepted. These results are in line with research conducted by Baptista & Oliveira (2016) which states that facilitating conditions have a positive influence on use behavior. The results of this study are also in line with the results of research conducted by Widyaningrum (2020) which states that facilitating conditions have a positive influence on use behavior. This can happen because the facilitating conditions itself discusses all available technical support or infrastructure. The more qualified technical support or infrastructure you have, the greater the tendency to use m -banking. This means that when someone has primary and supporting resources related to the use of m-banking, that person will use m-banking for their purposes, perhaps from curiosity about m-banking, demands to use m-banking because of the x factor, or other things which of course is related to the use of m-banking.

i. The Influence of Habit on Behavioral Intention

Based on the results of the hypothesis test conducted, the habit variable has a positive influence on the behavioral intentions variable with a significance value of 0.001 <0.05. So with this hypothesis 8a is accepted. The results of this study are in line with the results of research conducted by Ceta et al (2020) which states that habit has a positive influence on behavioral intentions. The results of this study are also in line with the results of research conducted by Iqbal et al (2022) which states that habit has a positive influence on behavioral intentions. When someone feels that they have good knowledge and experience in using technology similar to m-banking, one of which is to facilitate transactions, it is very likely that that person will have behavioral intentions to use m-banking. This can be an indication that the more knowledge and experience that is qualified in the use of technology, the greater the behavioral intentions that arise

j. Influence of Habit on Usage Behavior

Based on the results of hypothesis testing, the habit variable has a positive influence on the use. Variable behavior or usage behavior with a significance value of 0.046 <0.05. So with this hypothesis 8b is accepted. This result is in line with the results of research conducted by Cera et al (2020) which states that the habit variable has a positive influence on use behavior. The results of this study are also in line with the results of research conducted by Baptista & Oliveira (2016) which states that habit has a positive influence on use behavior. Use with a significance value of 0.046 <0.05. So with this hypothesis 8b is accepted. This can happen because the habit itself discusses the use of technology based on a person's knowledge, experience, and abilities so that in using technology similar to m-banking, the person automatically has an easy tendency to adapt to m-banking and is accustomed to using m-banking terms of operation.

k. Influence of Behavioral Intention on Usage Behavior

Based on the results of the hypothesis testing conducted, the behavioral intentions variable has a positive influence on the use behavior variable with a significance value of 0.000 <0.05. So with this hypothesis 9 is accepted. This result is in line with the results of research conducted by Cera et al (2020) which states that behavioral intentions have a positive influence on use behavior variables. The results of this study are also in line with the results of research conducted by Kwateng et al (2018) which states that behavioral intentions have a positive influence on the use behavior variable. This can happen because behavioral intentions themselves discuss the tendency of individuals in choosing to do or not do a certain thing or job, where when conceptualized with the behavior of using m-banking, someone ultimately uses m-banking because it is based on and influenced by various factors such as the level of usefulness obtained and the costs incurred when using m-banking, support related to facilities or resources, both internal and external, habits, and other factors.

IV. Conclusion

Based on the results of research on the implementation of the utaut2 model along with gamification and its effect on behavioral intentions and usage behavior, the following conclusions are obtained:

1. There is no effect of performance expectancy on behavioral intentions.
2. There is no effect of effort expectancy on behavioral intentions.
3. There is no social influence on behavioral intentions.
4. There is no effect of hedonic motivation on behavioral intentions.
5. There is a positive effect of perceived value on behavioral intentions.
6. There is no effect of gamification on behavioral intentions.
7. There is no effect of facilitating conditions on behavioral intentions.
8. There is an influence of facilitating conditions on use behavior or usage behavior.
9. There is an influence of habit on behavioral intentions.
10. There is an influence of habit on use behavior or usage behavior.
11. There is an influence of behavioral intentions on use behavior or usage behavior.

References

Aryono Putranto, I. (2020). Acceptance Technology Factors of Mobile Banking Usage Based on Utaut2 Model. Airlangga Journal of Accounting and Business Research , 5 (2), 920.

Baptista, G., & Oliveira, T. (2017). Why so serious? Gamification impact in the acceptance of mobile banking services. Internet Research , 27 (1), 118–139.

Bharata, W., & Widyaningrum, PW (2020). Analysis of Acceptance of Mobile Banking Technology on Use Behavior Through the Utaut Model 2 Approach (Study on KCU BCA Malang Customers). Capital: Journal of Economics And Management , 3 (2), 139.

era, G., Pagria, I., Khan, KA, & Muaremi, L. (2020). Mobile banking usage and gamification: the moderating effect of generational cohorts. Journal of Systems and Information Technology , 12 (3), 243–263.

Chaouali, W., Lunardo, R., Ben Yahia, I., Cyr, D., & Triki, A. (2020). Design aesthetics as drivers of value in mobile banking: does customer happiness matter? International Journal of Bank Marketing , 38 (1), 219–241.

et. al., AS (2021). Effects of UTAUT 2 Model on the Use of BCA Mobile Banking in Indonesia. Turkish Journal of Computer and Mathematics Education (TURCOMAT) , 12 (3), 5378–5387.

Fajar, AN, Johanes, FS, Girsang, AS, & Wang, G. (2018). Evaluation of the used of visual electronic banking system application using UTAUT 2 in Bank Central Asia corporation. IOP Conference Series: Materials Science and Engineering , 420 (1), 1–8.

Farah, MF, Hasni, MJS, & Abbas, AK (2018). Mobile-banking adoption: empirical evidence from the banking sector in Pakistan. International Journal of Bank Marketing , 36 (7), 1386–1413.

Farzin, M., Sadeghi, M., Yahyayi Kharkeshi, F., Ruholahpur, H., & Fattahi, M. (2021). Extending UTAUT2 in M-banking adoption and actual use behavior: Does WOM communication matter? Asian Journal of Economics and Banking , 5 (2), 136–157.

Ghozali, Imam. (2018.) Application of Multivariate Analysis with IBM SPSS 25 Program. Diponegoro University Publishing Agency: Semarang

Gunawan, G.G., and Sulaeman, M. (2020). Determining Factors in the Use of Digital Marketing and Its Effect on Marketing Performance inthe Creative Industriesin Tasikmalaya. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (3): 2543-2550.

Gupta, A., Dogra, N., & George, B. (2018). What determines tourist adoption of smartphone apps?: An analysis based on the UTAUT-2 framework. Journal of Hospitality and Tourism Technology , 9 (1), 48–62.

Hariati, P. (2021). Implementation of Digital Literacy toward Pandemic Situation. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 4 (2): 2920-2926.

Hussain, M., Mollik, AT, Johns, R., & Rahman, MS (2019). M-payment adoption for bottom of pyramid segment: an empirical investigation. International Journal of Bank Marketing , 37 (1), 362–381.

Kalinić, Z., Marinković, V., Djordjevic, A., & Liebana-Cabanillas, F. (2020). What drives customer satisfaction and word of mouth in mobile commerce services? A UTAUT2-based analytical approach. Journal of Enterprise Information Management , 33 (1), 71–94.

Merhi, M., Hone, K., Tarhini, A., & Ameen, N. (2020). 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 , 34 (4), 1144–1168.

Mohd Thas Thaker, H., Mohd Thas Thaker, MA, Khaliq, A., Allah Pitchay, A., & Iqbal Hussain, H. (2022). Behavioral intention and adoption of internet banking among clients' of Islamic banks in Malaysia: an analysis using UTAUT2. Journal of Islamic Marketing , 13 (5), 1171–1197.

Nopiani, NKR, & Putra, IMPD (2021). Application of the UTAUT 2 Model to Explain Interests and Behaviors in Using Mobile Banking. E-Journal of Accounting , 31 (10), 2569.

Nugroho, P., Winarno, WW, & Hartanto, R. (2017). Factors Affecting Intention to Use Mobile payment with the Extended The Unified Theory of Acceptance and Use of Technology Approach. Department of Electrical Engineering and Information Technology, Faculty of Engineering UGM , 226–233.

Oseni, UA, Adewale, AA, & Omoola, SO (2018). The feasibility of online dispute resolution in the Islamic banking industry in Malaysia: An empirical legal analysis. International Journal of Law and Management , 60 (1), 34–54.

Owusu Kwateng, K., Osei Atiemo, KA, & Appiah, C. (2019). Acceptance and use of mobile banking: an application of UTAUT2. Journal of Enterprise Information Management , 32 (1), 118–151.

Pal, A., Indapurkar, K., & Gupta, KP (2021). Gamification of financial applications and financial behavior of young investors. Young Consumers , 22 (3), 503–519.

Parayil Iqbal, U., Jose, SM, & Tahir, M. (2022). Integrating trust with extended UTAUT model: a study on Islamic banking customers' m-banking adoption in the Maldives. Journal of Islamic Marketing .

Mighty, FBP, & Emanuel, AWR (2020). Gamification as a Method for Gaining Customer Loyalty: Literature Review. Aiti , 17 (1), 11–21.

Rahi, S., & Abd. Ghani, M. (2019). Does gamified elements influence on user's intention to adopt and intention to recommend internet banking? International Journal of Information and Learning Technology , 36 (1), 2–20.

Raza, SA, Shah, N., & Ali, M. (2019). Acceptance of mobile banking in Islamic banks: evidence from modified UTAUT model. Journal of Islamic Marketing , 10 (1), 357–376.

Rodrigues, LF, Oliveira, A., & Costa, CJ (2016). Playing seriously - How gamification and social cues influence bank customers to use gamified e-business applications. Computers in Human Behavior , 63 , 392–407.

Samsudeen, SN, Selvaratnam, G., & Hayathu Mohamed, AH (2022). Intention to use mobile banking services: an Islamic banking customers' perspective from Sri Lanka. Journal of Islamic Marketing , 13 (2), 410–433.

Sugiyono. (2018). Quantitative, Qualitative, and R&D Research Methods , publisher Alfabeta Bandung

Taruli, AE, Chan, A., & Tresna, PW (2021). The Effect of "Shopee Tanam" Version Gamification on Customer Engagement for Shopee Indonesia Mobile Applications (Survey of Shopee in App Games Feature Users in Bandung City). AdBispreneur , 5 (3), 283.

Wut, E., Ng, P., Leung, KSW, & Lee, D. (2021). Do gamified elements affect young people's use behavior on consumption-related mobile applications? Young Consumers , 22 (3), 368–386.