

Factors Influencing E-Banking Use In Batam: A User Perception Analysis

Mulyanto¹, Angga Wahyudi², Ile Arbertus³, Ari Firmansah⁴, Jhon Lim⁵

¹Universitas Internasional Batam, 2131149.mulyanto@uib.edu

²Universitas Internasional Batam, 2131128.angga@uib.edu

³Universitas Internasional Batam, 2131136.ile@uib.edu

⁴Universitas Internasional Batam, 2131100.ari@uib.edu

⁵Universitas Internasional Batam, 2131082.jhon@uib.edu

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ABSTRACT

This study investigates the factors influencing the adoption and use of electronic banking in Batam, Indonesia, in light of the global and regional surge in e-banking. The main objective is to discern how convenience, accessibility, cost savings, and service quality affect the adoption and continuous usage of these services, providing insights to help financial institutions and policy-makers formulate strategies that further promote e-banking adoption. Employing a quantitative research methodology, featuring six variables: perceived usefulness, subjective norm, perceived ease of use, intention to use, perceived technology, and perceived risk. The data, gathered from 400 participants via surveys, showed that specific variables are unaffected by all except three perceptions of usefulness, technology, and danger. Curiously, when it comes to e-banking, the subjective norm has a far stronger impact on consumers than convenience of use does on their desire to use. For future research, a clearer demographic view can be obtained by considering target respondents and expanding the scope beyond Batam City.

Keywords: Electronic Banking, User Perception, Quantitative Research

1. Introduction

Electronic banking, also known as E-banking, has revolutionized financial transactions. Financial transactions including paying bills, depositing checks, and transferring money are all made possible via this system. This is done through electronic devices such as computers, tablets, and smartphones. In recent years, e-banking has gained tremendous popularity due to its convenience and accessibility. The fear of contacting COVID-19 has led to an increase in cashless transactions and online e-transactions, which has driven the usage of e-banking services before, during, and after the pandemic report by [1]. Smartphones and the internet have played a significant role in e-banking growth. Electronic banking offers several benefits including cost-effectiveness, 24/7 availability, and enhanced security measures. These advantages make e-banking a significant part of modern banking and its adoption is expected to grow in the future.

With a meteoric rise in both transactions and users, online banking has exploded in popularity in Indonesia in the last few years. According to Perry Warjiyo, Governor of Bank Indonesia, Indonesia has experienced significant growth in the digital economy and financial

transactions, with electronic money transactions increasing by 26.08 percent year on year to reach Rp36.57 trillion in January 2023 [2]. [3] report widespread use of mobile devices in Indonesia, with over 100 mobile phones registered and 150 million mobile cards registered. As a result, it is easier for individuals to conduct banking activities online. In addition, entrepreneurs can develop innovative digital banking applications to meet digital banking demand. This trend is expected to continue as more people gain access to smartphones and the internet. This will make mobile devices a necessity for almost all people in Indonesia. Due to the increase in the middle class in Indonesia, electronic banking has also been adopted more widely, as more people seek digital alternatives to traditional banking. In addition, the Indonesian government has implemented policies to encourage financial inclusion, including initiatives to improve access to banking services for the unbanked. This has facilitated the growth of e-commerce in Indonesia. People are looking for safer methods to transact, and the COVID-19 epidemic has just added to that. E-banking has become more popular. The government's initiatives to promote financial inclusion and the pandemic's impact on Batam's tourist and industrial sectors have both contributed to an increase in online banking use in the city.

Convenience, accessibility, and cost savings are three of the main reasons why people choose to bank online. The ease it provides is one of the key selling points of online banking. Customers have the freedom to manage their funds and access their accounts whenever and wherever they choose. Because of this, going to a real bank branch and standing in line are no longer necessary. Additionally, electronic banking offers quick and easy ways to transfer funds, pay bills, and make other financial transactions. The accessibility of electronic banking is another factor that encourages its use. Customers can easily access their accounts from their laptops, tablets, or smartphones. This offers greater flexibility and convenience for those who are constantly on the go. Electronic banking also provides clients with real-time access to a variety of financial data, including account balances, transaction history, and more. A study by [4], also shows that a service quality is a factor when it comes to using electronic banking. Customers' perceptions of electronic banking are now based on service quality, which is a crucial factor in any society. The customer satisfaction will then encourage the user to use more of the services provided through electronic banking. People and businesses in Batam has started to use electronic banking in their everyday lives. As stated by [5], Digital payment systems and banking emerged in response to the proliferation and use of mobile devices and the internet throughout the world. With the spread of electronic banking, it is recommended to open up an account as many businesses and everyday lives will make use of this.

Electronic banking have become an increasingly popular choice among users in recent years. [6] conducts a study about the perception and attitude of people using electronic banking services. Many users perceive such services as convenient, reliable, and secure. Attitudes towards electronic banking varies depending on age, income level, and technology literacy. Younger users tend to have more positive perceptions and attitudes towards electronic banking services, while older users may be more hesitant to adopt these technologies. However, as electronic banking services become more commonplace, more users are becoming comfortable with their use. Security is a major concern for users of electronic banking services. Users want to be assured that their personal and financial information is protected from unauthorized access, fraud, and hacking. Many electronic banking uses security measures to protect user data, which can help to build trust and confidence in these services. Accessibility is another important factor in user perceptions and attitudes towards electronic banking services. Users want to be able to access their accounts and make transactions quickly and easily, from any location.

The main reasons for the adoption of electronic banking are its convenience, accessibility, and cost savings. As there are previous researches that have been done in a larger scale. This research is going to be conducted in Batam. Examining how users in Batam think and act is the main goal of this research. With the use of quantitative methods, this study will shed

light on the factors that influence users' decisions when it comes to online banking. Findings from this study will give light on what motivates Batam residents to utilize online banking.

Literature Review

This study is based on the result of research done by [7]. University students' intentions to utilize electronic banking are being studied in this study. The variables that will be examined include their perceptions of technology, risk, utility, subjective norm, and perceived ease of use. A questionnaire and purposive sample are the tools of the research toolbox. The population used during research are university students from 2015-2017 with a total of 2.597 students. Based on the Slovin formula, the required minimum samples are 347 students. Based on the research suggestion, it is recommended for banks to held socialization in campus activities and cooperated with student's organizations, thus their financial products, especially electronic banking will be widely known by students.

Another study by [8], investigated the variables impacting the uptake of online banking by Malaysian college students. This study used the Technology Acceptance Model (TAM) to investigate the relationship between the three factors of perceived utility (PU), perceived ease of use (PEU), and perceived credibility (PC) and the desire to use internet banking by individuals. The sample size was 375 college students, and the data came from surveys they filled out. The students' propensity to utilize online banking was positively affected by each of the TAM elements, according to the findings. Further, the research highlighted that the service's trustworthiness (PC) and ease of use (PEU) were the most important factors influencing college students' adoption of online banking. The research highlights the significance of investigating the elements that impact the uptake of online banking among Malaysian university students. It suggests that universities and banks should collaborate to increase awareness and education about internet banking.

Another study conducted by [9], sought to determine what influences Algerian clients' adoption and use of online banking services. A structural equation model (SEM) based on the unified theory of acceptance and use of technology (UTAUT) and the technology acceptance model (TAM) was used to evaluate survey data from 326 consumers. Findings demonstrated that views and actual e-banking usage were positively affected by perceived utility and convenience of use, with greater connections shown for older users and women.

A study by [10], said that the influence of ICT had now revolutionized financial services. Banks have taken use of cutting-edge information technology, such the internet, to better serve their customers and meet their evolving demands. Several factors are raised to delve further into the study's analysis of behavioral intention to utilize online banking. Gathering primary data quantitatively via the use of questionnaires. In order to determine what factors contributed to the observed disparities among the participants, the study used a comparative causal approach, which is an ex post facto method. Customers who aren't confident in their ability to use the features of online banking may choose not to use these services, according to the survey.

[11] also looked at how the Technology Acceptance Model (TAM) for Indonesian IB relates to customers' level of expertise and confidence. The research team behind this study set out to determine whether or whether customers' trust and knowledge have a moderating role in the connection between IB attitudes and the perceived utility and ease of use of the platform, which in turn affects the intention to utilize the platform. Study participants were clients of Bank Mandiri, Bank Central Asia (BCA), and Bank Rakyat Indonesia (BRI), the three biggest banks in Indonesia. Data collection was conducted using selective sampling approaches. The research used a Structural Equation Model using a Partial Least Square method to analyze data from 280 respondents. The findings revealed that greater customer knowledge positively affects attitudes towards internet banking, while trust reduces the impact of perceived usefulness. These results suggest that managers should focus on enhancing customer knowledge and trust to increase the adoption of internet banking services.

This research will focus on behavior and intention to use in internet banking in the people of Batam and to increase awareness about internet banking based on the research done by [7] and [8]. This study will apply a quantitative method by distributing questionnaires and surveys done based on [9] and a sampling method used by [11] as reference. This research targets the people of Batam who use internet banking [10].

2. Research Method

This research is a type of quantitative research using a research model from [7] Perceived technology and perceived danger are the two independent factors in this study, whereas perceived utility, subjective norm, perceived ease of use, and intention to use are the four dependent variables. Figure 1 clearly displays the research model.

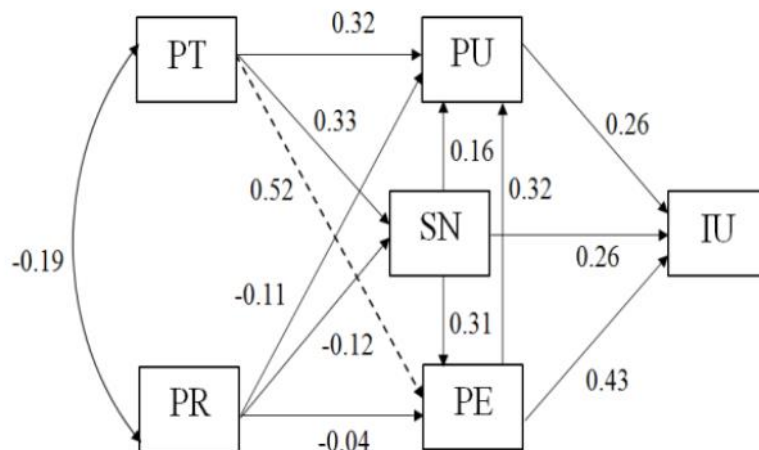


Figure 1. Model of the Variables

The hypothesis of the research conducted is as follows:

- H1 –Perceived of usefulness, have a positive and significant effect on intention to use
- H2 –Perceived ease of use, have a positive and significant effect on intention to use
- H3 –Subjective norm, have a positive and significant effect on intention to use
- H4 –Subjective norm, have a positive and significant effect on perceived of usefulness
- H5 –Subjective norm, have a positive and significant effect on perceived ease of use
- H6 – perceived ease of use, have a positive and significant effect on perceived of usefulness
- H7 –Perceived of technology, have a positive and significant effect on perceived of usefulness
- H8 –Perceived of technology, have a positive and significant effect on perceived ease of use
- H9 –Perceived of technology, have a positive and significant effect on subjective norms
- H10 –Perceived of risk, have a negative and significant effect on perceived of usefulness
- H11 –Perceived of risk, have a negative and significant effect on perceived ease of use
- H12 – Perceived of risk, have a negative and significant effect on subjective norms

The operational definitions of the variables used to develop this research instrument are shown in table 1.

Table 1. Variables definitions and indicators

Variable	Definition	Indicator
Intention to Use	Interest or behavior to use a technology/system/service	I am interested in continuing to use Internet banking in the future
		The use of internet banking according to my needs
		The use of internet banking Get support from family

		and colleagues
		I recommend internet banking to others
Perceived Ease of Use	A person's perception of a technology/system that it does not need to be used energy or effort so that it will be easy to use	Internet banking is easy to learn for me
		Internet banking is easy to use for me
		Internet banking can be used at any time
		Internet banking is very clear and easy to understand
		I can use Internet banking proficiently
Subjective Norms	Social encouragement that can come from family, friends, or the organizational environment motivate individuals to perform a behavior	My family will do internet banking transactions in the future
		My friends predict that I will do internet banking transactions in the future
		Many people think that I should use internet banking
Perceived Usefulness	A person's perception of a technology that will bring benefits to his/her life.	Internet banking is very useful in my work
		Internet banking is very useful in my daily life
		For me, I don't need to spend a long time when using internet banking
		Internet banking increases productivity in my every activity
Perceived of Technology	One's perception of technology which is useful and supports the activities of the user	Bank transactions via the internet are faster than traditional methods
		Bank transactions via the internet are of sufficient quality in achieving the desired goals
		Bank transactions via the internet are more convenient than face to face with a bank officer
Perceived of Risk	Worries about the uncertainty and unintended consequences of using a product or service	I believe internet banking will be a great tool to look at my financial situation
		I am sure that the bank that provides internet banking facilities will carry out the transaction as promised
		I believe that transactions via internet banking are safe
		I believe that internet banking will meet my bank transaction needs in the future
		I am sure that transactions via internet banking will be used by many people
		I am sure that internet banking will be carried out by various banks

The estimated over 200,000 inhabitants of Batam who have made use of internet banking make up the population in this research. A total of 400 samples were collected via cluster disproportionate random sampling. Its intended audience consists of those who often use the financial services of BCA, Mandiri, BRI, and OCBC. The SPSS-based linear regression approach will be used in this investigation. When studying the effects of several factors, quantitative research methods like regression analysis come in handy. Researchers may find out whether independent factors significantly affect the dependent variable and to what extent by evaluating the data using regression models.

$$y = f(X, \beta) \quad (1)$$

The regression formula includes independent variables (X) and the dependent variable (Y). Subsequently, the data was examined using regression tests, namely the F test, R2 test, and t test, to see whether the independent factors were correlated with the dependent variable. Using SPSS, we will do regression and correlation analysis.

3. Results and Analysis

Respondent Description

This research begins by testing the validity and reliability of each indicator of each variable, where the data is obtained from 400 respondents through distributing questionnaires

Table 2. Description of Respondents

Characteristics	Percentage
Gender	
Male	29.25%
Female	70.75%
Use Mbanking	
Yes	87%
No	13%
Banks	
BCA	51%
BRI	21%
MANDIRI	14%
OCBC	14%
Use for	
Money transfer	38.5%
Pay Bills	61.5%

Validity and reliability test

Testing the validity of the research instrument was carried out using the Pearson Correlation. The test is applied to each operational definition of the variable. An operational definition of a variable is declared valid if the significance value is below 0.05 and the Pearson Correlation Coefficient is above 0.05. A significant value below 0.05 and a Pearson Correlation Coefficient value over 0.05 were determined for all operational definitions of the variables, indicating their validity, according to the findings of these tests.

Reliability testing of research instruments was carried out using Cronbach's Alpha. The test is applied to each indicator. A research instrument is declared reliable if the Cronbach's Alpha coefficient is above 0.5. Based on the results of these tests, it was found that all research instruments had a value greater than 0.6 so that they were declared reliable.

F-test

The results in table 3 show that every single F-count number is higher than 30. So, it's safe to say that every single independent variable significantly impacts the dependent variable in question.

Table 3. F-test table

Dependent Variable	Independent Variable	F
Intention to use	Subjective norm	1548,253
	Perceived of usefulness	
	Perceived ease of use	
Perceived ease of use	Perceived of risk	1129,214
	Perceived of technology	
	Subjective norm	
Subjective norm	Perceived of risk	1744,777

	Perceived of technology	
Perceived of usefulness	Subjective norm	843,806
	Perceived ease of use	
	Perceived of technology	
	Perceived of usefulness	

T-test

The means of two groups may be compared using the T-test, a statistical test. To find out whether a procedure affects the study population, it is used in hypothesis testing. You may view the test results in table 4.

Table 4. T-test table

Dependent variable	Independent variable	T	Sig.
Intention to use	Subjective norm	12,098	0,000
	Perceived of usefulness	-0,882	0,378
	Perceived ease of use	13,834	0,000
Perceived ease of use	Subjective norm	4,943	0,000
	Perceived of technology	-1,439	0,151
	Perceived of risk	14,320	0,000
Subjective norm	Perceived of technology	3,193	0,002
	Perceived of risk	42,922	0,000
Perceived of usefulness	Subjective norm	14,897	0,000
	Perceived ease of use	1,641	0,102
	Perceived of technology	29,591	0,000
	Perceived of risk	-7,871	0,000

Variable Subjective norm

The Subjective norm variable's T-value test yields a positive result and a significant value of 0.000, meeting the criteria for a significance value below 0.05. This analysis shows that the subjective norm variable does, in fact, impact the intention to use variable, but only little.

Testing the T-value of the Subjective norm variable shows a positive value and significant value of 0.000 which fulfill the requirements for a significance value below 0.05. This test shows that the Perceived ease of use variable is significantly impacted by the Subjective norm variable.

Testing the T-value of the Subjective norm variable shows a positive value and a significant value of 0.000 which fulfill the requirements for a significance value below 0.05. A statistically significant relationship between the Subjective norm and the perceived usefulness variable is shown by this test.

Variable Perceived of usefulness

The perceived usefulness variable did not meet the criteria for a significance value below 0.05, as shown by the negative value and significant value of 0.378 in the T-value test. There is no statistically significant relationship between the perceived usefulness and intention to use variables, as shown by this test.

Variable Ease of use

In order to meet the criteria for a significance value below 0.05, the T-value testing of the Ease of use variable indicates a positive value and a significant value of 0.000. The results of this test show that there is a statistically significant relationship between the Intention to use and Ease of Use variables.

A positive and statistically significant T-value of 0.102 for the Ease of use variable was found during testing, although this value did not meet the criteria for a significance level below

0.05. The results show that there is a marginally significant relationship between the Ease of use and Perceived usefulness variables.

Variable Perceived of technology

The perception of technology T-value test yielded a negative result with a significance level of 0.151, which is too high to be considered statistically significant ($p < 0.05$). Based on the results of this test, we can conclude that the perceived ease of use variable is unrelated to the perceived technology variable.

In order to meet the criteria for a significance value below 0.05, the T-value testing the perception of technology variable reveals a positive value and a significant value of 0.002. A statistically significant relationship between the Perceived of technology and the Subjective norm has been shown by this test.

There is a positive value and a significant value of 0.000 for the T-value of the Perceived of Technology variable, meeting the threshold for a significance value below 0.05. The results of this test show that the perceived usefulness variable is significantly affected by the perceived technology variable.

Variable Perceived of risk

In order to meet the criteria for a significance value below 0.05, the T-value testing the perceived risk variable reveals a positive value and a significant value of 0.000. A statistically significant relationship between the perceived risk and subjective norm variables has been shown by this test.

The perceived risk variable's T-value is negative and statistically significant at 0.000, meeting the criteria for a significance level below 0.05. The results of this test show that the perceived risk variable influences the perceived usefulness variable to a somewhat significant degree.

In order to meet the criteria for a significance value below 0.05, the T-value testing the perceived risk variable reveals a positive value and a significant value of 0.000. There is a statistically significant relationship between the perceived ease of use and the perceived danger, according to this test.

R²-test

The results of the R2 test where the variables are used for the model are reliable and good as the percentage of variables that are not identified are less than 10%.

Classical Assumption Test

Normality test

The 2-tailed Asymptotic Significance value exceeds 0.05, according to the findings of the normalcy test using the Kolmogorov-Smirnov technique. In this approach, we may deduce that the data used follows a normal distribution.

Multicollinearity test

Table 5 displays the results of the multicollinearity test, which indicate that no VIF value exceeds 10. As a result, the linked independent variables do not exhibit any signs of multicollinearity.

Table 5. Multicollinearity test

Dependent Variable	Independent variable	tolerance	VIF
Intention to use	Perceived ease of usefulness	0,341	2,936
	Perceived ease of use	0,158	6,344
	Subjective norm	0,113	8,839
Perceived ease of use	Subjective norm	0,102	9,790

	Perceived of technology	0,567	1,763
	Perceived of risk	0,113	9,697
Subjective norm	Perceived of technology	0,582	1,719
	Perceived of risk	0,582	1,719
Perceived of usefulness	Subjective norm	0,096	1,806
	Perceived ease of use	0,105	9,555
	Perceived of technology	0,564	1,773
	Perceived of risk	0,068	4,562

Heteroscedasticity Test

Based on the results of the Heteroscedasticity test in the figure below. it can be seen from the scatterplot, the points spread evenly and well, so it can be proven that there is no heteroscedasticity in the four regression equations.

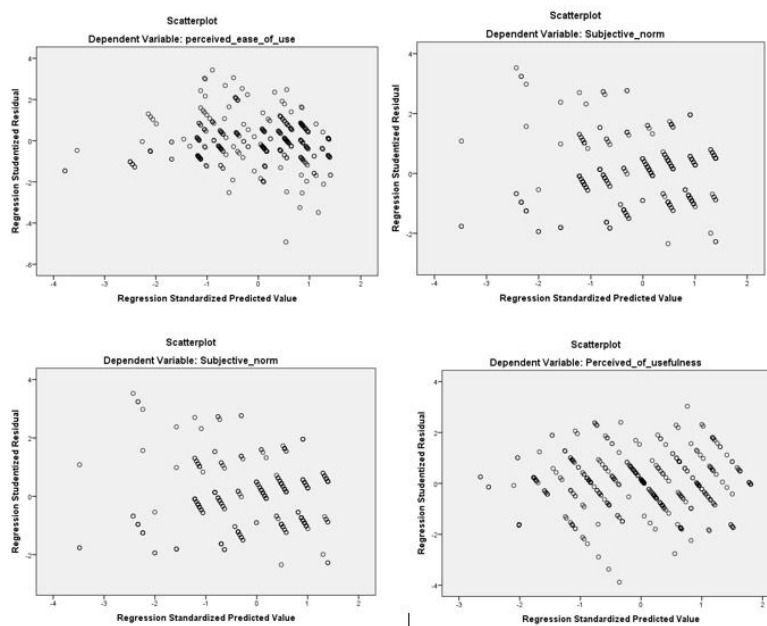


Figure 2. Heteroscedasticity Test

Autocorrelation Test

According to the autocorrelation test results shown in the table below, only the Subjective norm variable has a Durbin-Watson value lower than the lower limit, indicating an autocorrelation event. All the other variables, on the other hand, have Durbin-Watson values greater than the upper limit, thus ruling out any autocorrelation events in the related independent variables.

Tabel 4. Autocorrelation Test

Dependent variable	Independent variable	Lower value	limit	Upper value	limit	Durbin-Watson score
Intention to use	Perceived ease of usefulness	1.82586		1.84596		1.896
	Perceived ease of use					
Perceived ease of use	Subjective norm	1.82586		1.84596		2.014
	Perceived of technology					
	Perceived of risk					

Dependent variable	Independent variable	Lower value	limit	Upper value	limit	Durbin-Watson score
	Subjective norm					
Subjective norm	Perceived of technology	1.83089		1.84091		1,637
	Perceived of risk					
	Subjective norm					
Perceived usefulness	of Perceived ease of use					
	Perceived of technology	1.82081		1.85103		1,981
	Perceived of risk					

Analysis

Intention to use, perceived ease of use, subjective norm, and perceived utility are the characteristics that this research focuses on when it comes to E-banking electronic services. The findings of the hypothesis test using linear regression analysis show that there is no influence of perceived usefulness on the intention to use electronic banking, and that perceived usefulness has a negative and minor effect on intention to use. The results disprove the null hypothesis. People may be more inclined to utilize something if they find it useful. However, not everyone will be interested in using something just because it is really useful. Some individuals may prefer the tried-and-true methods of yesteryear because they are more used to them and find them more comfortable.

According to the findings of the hypothesis test using linear regression analysis, there is a positive and significant relationship between the intention to use electronic banking and perceived ease of use. It follows that the null hypothesis cannot be true. More individuals will be open to using E-banking if it is easy to use. These results are supported by a study done by [9] that the variable ease of use had a positive influence on actual e-banking use.

Subjective norms significantly and positively affect the desire to use electronic banking, according to the findings of the hypothesis test using linear regression analysis. Thus, the third hypothesis is proven correct. The interest in utilizing electronic banking increases when individuals get support and encouragement from significant persons in their lives or from others they know.

Subjective norms significantly and positively affect perceived utility, according to the findings of the hypothesis test using linear regression analysis. The results support the acceptance of the fourth hypothesis. They will reap more advantages from adopting electronic banking if they have the backing and encouragement of those they care about.

The findings of the hypothesis test, which was conducted using the linear regression analysis approach, indicate that subjective norms significantly and positively impact the perception of ease of use. The acceptance of the fifth hypothesis is shown by this. They find it simpler to utilize online banking when they have the support and encouragement of individuals they care about.

There is a positive and statistically insignificant relationship between the perceived usefulness and the perceived ease of use, according to the findings of the hypothesis test using linear regression analysis. This proves that hypothesis six is incorrect. If someone thinks technology is easy, it does not mean they will get a lot of benefits out of it. Whether people want to use a new system depends on how much they want to use it, which depends on what they think about the system.

According to the findings of the hypothesis test using linear regression analysis, there is a positive and substantial relationship between how people perceive technology and their perception of its utility. The results support the acceptance of the seventh hypothesis. If you know

more about technology and how to use it, you will understand how electronic banking works better. Now, you can do a lot of things with online banking that can help you with your money. Traditionally, you had to go to the bank or ATM and wait in line to do anything, but now you can use your phone or computer to do it quickly. This saves time and makes things easier for you.

A negative and statistically insignificant relationship exists between how people perceive technology and how easy it is to use, according to the findings of a hypothesis test using linear regression analysis. This proves that perceived technology has no effect on perceived ease of use, therefore rejecting hypothesis eight. You still may not find E-banking straightforward to use even if you are tech-savvy. How simple it is to utilize online banking without making an effort is what we mean when we talk about perceived ease of use. People are more inclined to adopt a technology if they see it as being user-friendly compared to others.

According to the findings of the hypothesis test using linear regression analysis, there is a positive and substantial relationship between how technology is regarded and subjective standards. The acceptance of the ninth hypothesis is shown by this. The greater the knowledge and view of easy and useful technology, the greater the support from people who are important to users. Someone who is inexperienced will be easily influenced by the people closest to them, especially by family and friends. So, when people closest to them do something new, those who are inexperienced tend to be interested and follow suit. Thus, it can be concluded that subjective norms are the determining factor that encourages someone to use this service. Someone who has no experience in using a technology or who has low knowledge, he will be easily influenced by people around him if he really feels that the technology that is told by those closest to him will provide benefits and improve performance.

According to the findings of the hypothesis test using linear regression analysis, perceived risk significantly and negatively affects perceived usefulness. This shows that the tenth hypothesis is accepted. Perceived usefulness is not affected by perceived risk. When you use online banking, you might worry about things that could go wrong. You could lose your money, someone could take your personal information, or you might feel like the online bank is not as good as a regular bank. When you're not sure what's going to happen, feeling that there is more risk. You might think about all the things that could go wrong before you decide to use an online bank.

We may conclude that the eleventh hypothesis is false since there is a positive and statistically significant relationship between perceived risk and perceived usefulness. Even if the risk is small or big, it doesn't change how easy it is to use electronic banking. They might think it is too risky. So, it is important to be careful and make sure you're using electronic banking safely. Perceived risk can also cause customers to stop using electronic banking services.

Based on the hypothesis test, perceived risk has a positive and significant effect on the subjective norm, this shows that the twelfth hypothesis is rejected. There are two types, human error and technical error. Both of these risks can make you feel like you do not want to use e-banking anymore. If the risks are high, you might start to feel really negative about e-banking and might even stop using it altogether.

4. Conclusion

This research is to investigate the impact of the following factors on the technology and risk associated with E-banking among the Batam people: intention to use, perceived ease of use, subjective norm, and perceived utility. Four hundred residents of Batam participated in the quantitative study, which used a research model with four dependent variables—perceived usefulness, subjective norm, perceived ease of use, and technology—and two independent variables—perceived risk and technology. The linear regression analysis approach was used to conduct the study in SPSS.

According to the study's findings, out of the six factors tested, just three—perceptions of technology, perceived utility, and perceived risk—had no impact when tested in conjunction with

other variables. Additionally, the data demonstrate that although perceived utility is unaffected by ease of use, intention to use is significantly impacted. The results of this study suggest Subjective norm has significant influence users when it comes to E-banking.

Suggestions for further research, researchers can consider the target respondent needed for the future, this is because this research will have better result and clearer view of demographic, as Specific group may have their own view and answers regarding E-banking. Researchers may also consider cities outside Batam City.

References

- [1] P. K. Verma, "IMPACT OF COVID-19 ON E-BANKING IN INDIA," Mar. 2022.
- [2] M. Simanjuntak, "Nilai transaksi uang elektronik Januari 2023 menjadi Rp36,57 triliun - ANTARA News," 2023.
- [3] G. Wang, N. M. Putri, A. Christianto, and D. Hutama, "AN EMPIRICAL EXAMINATION OF CHARACTERISTICS OF MOBILE PAYMENT USERS IN INDONESIA," *J. Theor. Appl. Inf. Technol.*, vol. 15, no. 1, 2019.
- [4] S. A. Raza, A. Umer, M. A. Qureshi, and A. S. Dahri, "Internet banking service quality, e-customer satisfaction and loyalty: the modified e-SERVQUAL model," *TQM J.*, vol. 32, no. 6, pp. 1443–1466, Nov. 2020, doi: 10.1108/TQM-02-2020-0019.
- [5] W. A. Alkhowaiter, "Digital payment and banking adoption research in Gulf countries: A systematic literature review," *Int. J. Inf. Manage.*, vol. 53, p. 102102, Aug. 2020, doi: 10.1016/J.IJINFOMGT.2020.102102.
- [6] H. Rawwash *et al.*, "Factors affecting Jordanian electronic banking services," *Manag. Sci. Lett.*, pp. 915–922, 2020, doi: 10.5267/j.msl.2019.10.004.
- [7] A. Arumi and H. Yanto, "Economic Education Analysis Journal Info Artikel," 2019.
- [8] B. Othman, A. Harun, D. A. Ismail, Z. M. Sadq, S. Ali, and T. S. Ramsey, "Malaysian consumer behaviour towards internet banking: An application of technology acceptance model," *Int. J. Psychosoc. Rehabil.*, vol. 23, no. 2, pp. 689–703, May 2019, doi: 10.37200/IJPR/V23I2/PR190324.
- [9] M. Bellahcene and H. Latreche, "E-Banking Adoption by Algerian Bank Customers," *Int. J. E-Services Mob. Appl.*, vol. 15, no. 1, pp. 1–20, Feb. 2023, doi: 10.4018/IJESMA.317943.
- [10] F. Cuandra, "Pandangan Pengguna Internet terhadap Minat dalam Adopsi Internet Banking pada Masyarakat Kota Batam, Provinsi Kepulauan Riau, Indonesia," *SKETSA BISNIS*, vol. 7, no. 1, pp. 27–36, Aug. 2020, doi: 10.35891/jsb.v7i1.2133.
- [11] Y. Sutarso and D. Budi Setyawan, "Internet banking adoption in Indonesia: TAM extention with the moderation role of customer knowledge and trust," *J. Manaj. dan Pemasar. Jasa*, vol. 15, no. 2, pp. 289–306, Dec. 2022, doi: 10.25105/jmpj.v15i2.13897.