

Analysis Of Factors Affecting The Use Of The Mobile Home Ownership Credit (KPR) Application

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Abstrak: Dalam kegiatan usahanya, Bank telah mengimplementasikan teknologi informasi untuk mendukung berbagai proses bisnis yang ada. Dukungan teknologi ini akan mengubah model bisnis keuangan menjadi lebih efisien dan mengarah pada layanan digital. Salah satu bentuk layanan perbankan adalah pemberian kredit pemilikan rumah kepada nasabah perorangan yang akan membeli atau memperbaiki rumah. PT ABC merupakan perusahaan perbankan di bawah naungan BUMN yang fokus pada kredit perumahan. PT ABC juga telah mengimplementasikan teknologi informasi untuk kemudahan layanan yang akan diberikan kepada konsumen. PT ABC telah membuat aplikasi KPR mobile untuk memudahkan layanan KPR kepada nasabah. Dalam pengimplementasian aplikasi KPR mobile ini masih terdapat beberapa kendala dan berdasarkan penilaian di playstore masih tergolong rendah dan masih terdapat respon negatif dari pelanggan. Untuk itu diperlukan suatu analisis mengenai faktor apa saja yang dapat mendukung keberhasilan penggunaan aplikasi KPR mobile ini dimana hasil analisis ini diharapkan nantinya dapat digunakan sebagai pedoman untuk meningkatkan dan mengoptimalkan fungsi aplikasi ini. Penelitian ini menggunakan kombinasi dua model yaitu UTAUT2 dan Sistem Informasi Delone dan Mclean yang digunakan untuk mengidentifikasi faktor-faktor yang mempengaruhi penggunaan Aplikasi KPR Mobile. Data diperoleh dari 286 responden yang merupakan pelanggan PT ABC. Kemudian akan dianalisa menggunakan software SMART PLS versi 3.3.9. Hasil penelitian ini nantinya akan digunakan untuk PT ABC sebagai bahan evaluasi dan peningkatan kinerja aplikasi mobile KPR. Berdasarkan hasil penelitian yang dilakukan diketahui bahwa Performance expectancy, Sosial influence, Facilitating conditions, Price value, System quality, Service quality, Information quality berpengaruh signifikan terhadap perilaku penggunaan aplikasi KPR Mobile serta dengan meningkatnya penggunaan aplikasi KPR Mobile ini secara positif dapat meningkatkan satisfaction nasabah serta meningkatkan loyalty nasabah di PT ABC.

Abstract: In its business activities, the Bank has implemented information technology to support various existing business processes. This technology support will change the financial business model to be more efficient and lead to digital services. One form of banking service is the provision of home ownership loans to individual customers who are going to buy or repair a house. PT ABC is a banking company under the auspices of a BUMN that focuses on housing loans. PT ABC has also implemented information technology for the convenience of services that will be provided to consumers. PT ABC has created a mobile mortgage application to facilitate mortgage services to customers. In implementing this mobile mortgage application there are still several obstacles and based on ratings in the Playstore it is still relatively low and there are still negative responses from customers. For this reason, an analysis is needed regarding what factors can support the successful use of this mobile mortgage application where the results of this analysis are expected to later be used as guidelines for improving and optimizing the functions of this application. This study uses a combination of two models, namely UTAUT2 and Delone and Mclean



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Information Systems which are used to identify the factors that influence the use of the KPR Mobile Application. Data were obtained from 286 respondents who are customers of PT ABC. Then it will be analyzed using SMART PLS software version 3.3.9. The results of this study will later be used for PT ABC as material for evaluating and improving the performance of the KPR mobile application. Based on the results of the research conducted, it is known that Performance expectancy, Social influence, Facilitating conditions, Price value, System quality, Service quality, Information quality have a significant effect on the behavior of using the KPR Mobile application and increasing the use of the KPR Mobile application can positively increase customer satisfaction and increase customer loyalty at PT ABC.

INTRODUCTION

In the current era of globalization, the role of information technology has shifted from being used only as a tool to support company operations, to becoming a catalyst for fundamental changes in company structure, operations and management. This is because of its ability to increase productivity, reduce costs, improve decision making, improve relationships with customers, and develop new strategic applications. The role of IT in various aspects of business activities can be understood because as a technology that focuses on managing information systems using computers, IT can meet the information needs of the business world very quickly, on time, relevantly and accurately. (Fahmi, 2004)

The banking industry is one industry that has implemented information technology as the main facilitator of its business activities. This technological support will change the financial business model to be more efficient and lead to digital services. Definition of Bank according to Republic of Indonesia Law No. 7 of 1992, banking is a business entity that collects funds from the public in the form of savings and distributes them to the public in other forms in order to increase the living standards of many people. The application of information technology is the main facilitator in activities in the banking industry. This technological support will change the financial business model to be more efficient and lead to digital services. Responsibility for maintaining and improving financial performance is not only shown to the public, but to various parties such as investors as a basis for making decisions to invest their funds in the banking

sector or other sectors and the government because the government has the policy of guaranteeing funds that the public saves in banks so that the government also seeks to prevent a decline in performance in the banking sector. One form of banking service is providing home ownership credit to individual customers who want to buy or repair a house. Based on data from the Ministry of Public Works and Public Housing (PUPR), the Directorate General of Housing recorded that the total achievement of fulfilling the need for livable houses in 2015-2019 was 928 thousand, consisting of 49 thousand units of flats built, 700 thousand improvements in the quality of independent houses, 35 thousand units independent construction of new houses, 24 thousand special house developments, and 119 thousand PSU housing assistance units. Furthermore, in 2020-2021, the achievement of housing construction was 373 thousand units, consisting of 7,847 units of flats built, 360 thousand improvements to the quality of independent houses, 4,866 construction of special houses, and 37 thousand units of PSU housing assistance. Based on BPS Susenas data for 2021, there are 12.7 million households that do not yet own a house, where this number has the potential to continue to increase in line with the growth of new households which is estimated to reach 700 to 800 thousand heads of families each year. Therefore, stimulus is needed to be able to meet this housing need. (PUPR, 2022)

PT ABC is a banking company under the auspices of BUMN which focuses on housing loans. PT ABC has also implemented information technology to facilitate the services provided to consumers. One of the products developed by PT ABC is the

Android and iOS-based KPR Mobile application. This application has many benefits for customers when buying residential property, including saving time, being able to study in advance and having free consultations, many options for comparing other residential properties and being able to simulate mortgage installments. This mobile application is also a breakthrough from PT ABC to reach the millennial customer segment to be able to own a home and follow the current trend where customers prefer digital transactions. Based on Bank Indonesia data, there was an increase in the value of digital banking transactions by 31.40 percent year on year (yoy) or IDR 4,557.5 trillion in August 2022. In line with this, the value of electronic money transactions in Indonesia also grew by 43.24 percent yoy reached IDR 35.5 trillion. (Bisnis.com, 2022)

In implementing this mobile KPR application, PT ABC has not been able to maximize the use of this application, because there are still problems in implementing this application. Based on a search through Playstore, the results obtained an application rating of 3.9 out of 5.0 and interviews were conducted directly with application users regarding complaints felt when using the application, namely the lack of guidance in using this application, which makes application users take a long time to understand the features. There are too many existing features that make application users find it difficult to use them, the information provided is less informative and there is a lack of promotions or marketing gimmicks that application users usually expect. Regarding these complaints, if improvements are not made, it will impact the loyalty of PT ABC customers. Due to this, an analysis is needed regarding what factors can have an influence on increasing the use of the KPR Mobile application at PT ABC. It is hoped that the results of this analysis can be used as a guide to improve and optimize the function of the application. Based on the above, the problem formulation that will be discussed is what factors can increase the use of the PT ABC Mobile KPR application. This research aims to improve performance and optimize the function of the KPR Mobile

application so that it can become a useful guide for customers.

METHOD

The research model that will be used is a combination of two models, namely UTAUT2 and *Delone and Mclean Information Systems* which are used to identify factors that influence the use of the Mobile KPR Application. The independent factors extracted from the UTAUT2 model include *performance expectancy* (PE), *effort expectancy* (EE), *hedonic motivation* (HM), *price value* (PV), *habit* (HT), *social influence* (SI), and *facilitating conditions* (FC)) (Baabdullah, Alalwan, Rana, Kizgin, & Patil, 2019). The independent variables taken from the D&M IS Success Model include three factors (namely *service quality*, *information quality* and *system quality*). Regarding the dependent variable, this study adopts the influence of all previous independent variables on the usage variable, which is included in two models (Dwivedi, Shareef, Simintiras, Lal, & Weerakkody, 2016). Furthermore, this study adopts satisfaction as a dependent variable that is influenced by usage variables, and this factor is extracted from the D&M IS Success Model. Finally, this research adopts the loyalty variable as the dependent variable which is influenced by use and satisfaction. Because UTAUT2 and the D&M IS Success Model do not mention loyalty variables, the addition of loyalty is a contribution to this research. The behavioral intention variable was excluded from this research, even though it is mentioned in the UTAUT2 and D&M IS Success Models. Behavioral intention explains that the intention to use technology services must be made when the service is still new on the market because this mobile KPR application has been around since 2021, so this variable was excluded from this research (Delone & McLean, 2003). In this research, there is one variable outside the UTAUT2 and D&M IS models, namely the

loyalty variable which will later test the level of commitment to the KPR Mobile application. In other words, Behavioral intention is not used in this research because this variable appears at the start of use, while loyalty appears after use. Therefore, from a

logical point of view, there is a rational reason not to collect both variables in one conceptual model because they occur at different times. The following research model is used:

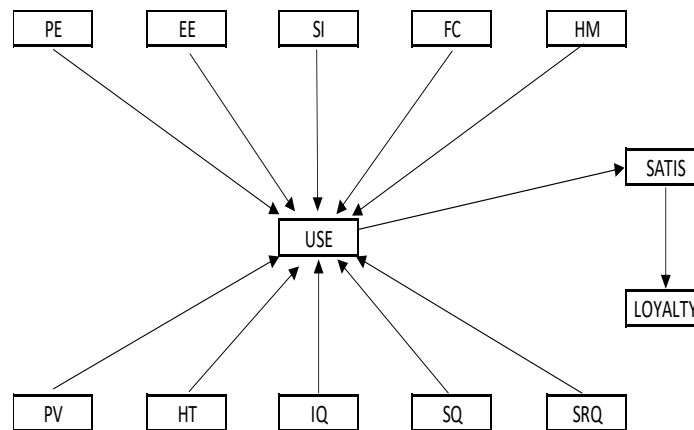


Figure 1. Research Model

RESULTS AND DISCUSSION

Validity test

Based on the PLS method, indicator validity testing can be carried out in 2 stages. The first stage, namely convergent validity testing, is validity testing based on the loading factor value of each construct and the next stage is discriminant validity testing, namely validity testing based on comparison.

Convergent Validity

According to Chin, (1998) in Ghazali, (2011) an individual reflexive measure is said to be high if it correlates more than 0.70 with the construct to be measured. However, for research in the initial stages of developing a measurement scale, a loading value of 0.5 to 0.60 is considered sufficient. The results of validation testing are shown in the following table:

Table 1. *Convergent Validity* Test Results

Variable	Indicator	Loading Factor Value	Condition	Information
<i>Performance Expectancy</i>	PE1	0.908	> 0.7	Valid
	PE2	0.895	> 0.7	Valid
<i>Effort Expectancy</i>	EE1	0.903	> 0.7	Valid
	EE2	0.877	> 0.7	Valid
<i>Social Influence</i>	SI1	0.874	> 0.7	Valid
	SI2	0.880	> 0.7	Valid
<i>Facilitating Conditions</i>	FC1	0.909	> 0.7	Valid
	FC2	0.908	> 0.7	Valid
<i>Hedonic Motivation</i>	HM1	0.787	> 0.7	Valid
	HM2	0.945	> 0.7	Valid
	HM3	0.955	> 0.7	Valid
<i>Price Value</i>	PV1	0.892	> 0.7	Valid
	PV2	0.893	> 0.7	Valid
<i>Habits</i>	HT1	0.863	> 0.7	Valid
	HT2	0.767	> 0.7	Valid

	HT3	0.849	> 0.7	Valid
	HT4	0.885	> 0.7	Valid
Usage	USE1	0.792	> 0.7	Valid
	USE2	0.913	> 0.7	Valid
	USE3	0.933	> 0.7	Valid
	USE4	0.910	> 0.7	Valid
Information Quality	IQ1	0.864	> 0.7	Valid
	IQ2	0.874	> 0.7	Valid
	IQ3	0.885	> 0.7	Valid
	IQ4	0.851	> 0.7	Valid
	IQ5	0.904	> 0.7	Valid
System Quality	SQ1	0.861	> 0.7	Valid
	SQ2	0.874	> 0.7	Valid
	SQ3	0.904	> 0.7	Valid
	SQ4	0.883	> 0.7	Valid
	SQ5	0.780	> 0.7	Valid
Service Quality	SRQ1	0.878	> 0.7	Valid
	SRQ2	0.890	> 0.7	Valid
	SRQ3	0.923	> 0.7	Valid
Satisfaction	SATIS1	0.774	> 0.7	Valid
	SATIS2	0.789	> 0.7	Valid
	SATIS3	0.778	> 0.7	Valid
	SATIS4	0.732	> 0.7	Valid
	SATIS5	0.822	> 0.7	Valid
Loyalty	LOYAL1	0.820	> 0.7	Valid
	LOYAL2	0.888	> 0.7	Valid
	LOYAL3	0.909	> 0.7	Valid

Source: Data Processing Results with SmartPLS 3.2.9 (2023)

Based on Table 1, it is known that all loading factor values for each indicator used to measure all variables studied are above 0.7. This proves that all the indicators used are valid or have met convergent validity, so

based on the decision making criteria, all indicators can be used in subsequent testing. The overall loading factor is depicted in the following figure.

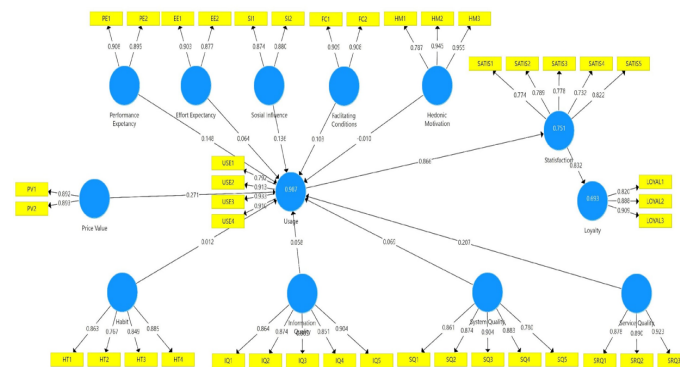


Figure 1. Outer Model Results

Source: Data Processing Results with SmartPLS 3.2.9 (2023)

Discriminant Validity

The second stage of validity testing, namely discriminant validity testing. This test is based on the cross loading value of the measurement with the construct and the

average variance extracted (AVE) value. Cross loading factor to find out whether the latent variable has adequate discriminant is by comparing the correlation between the indicator and other latent variables (Yamin,

2009). If the correlation value of a construct with measurement items is greater than the correlation value with other constructs, then this indicates that the latent construct predicts the measures in their block better than the measures in other blocks and it is said that the construct has high discriminant validity.

Hypothesis testing

Hypothesis testing in this research uses path coefficient values, t-statistics, and

p-values. Hypothesis testing was carried out on 286 respondents with the help of SmartPLS (Partial Least Square) software which can be seen from the bootstrapping results. The rules of thumb used in this research are t-statistics > 1.96 or p-value < 0.05 (5%) which can conclude that there is a significant influence between the independent variable and the dependent variable. The results of the research model are depicted in Figure 2 and the results of hypothesis testing are shown in Table 2.

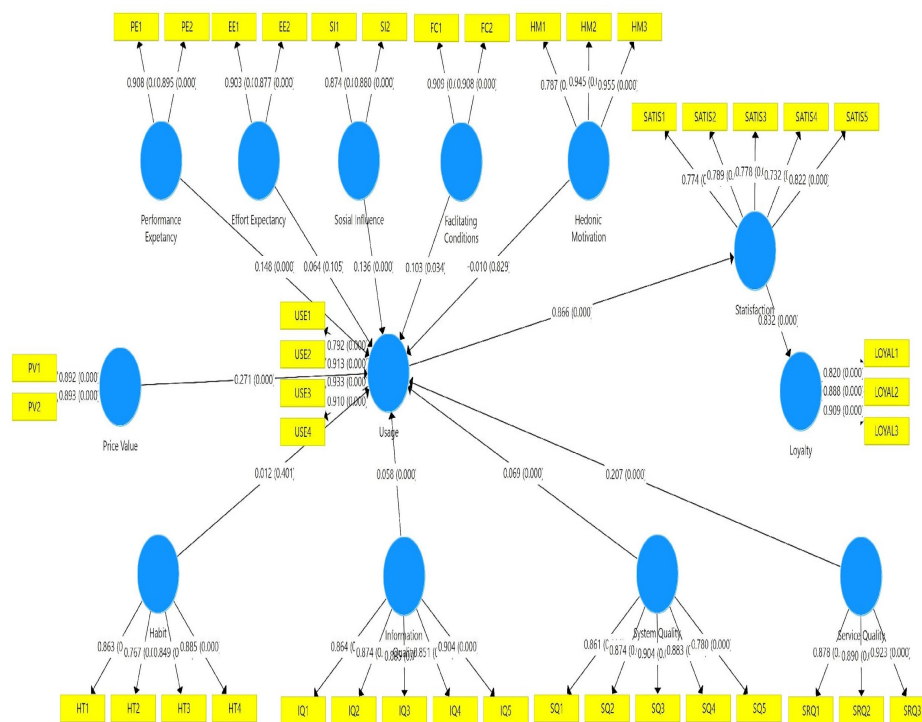


Figure 2. Research Path Diagram

Source: Data Processing Results with SmartPLS 3.2.9 (2023)

Through the results of data processing, the level of significance of the relationship is also obtained to see whether the hypothesis is significant or not significant. The relationship between

variables can be assessed through the path coefficient column, while the level of significance can be assessed through the T-statistic or P-value column, as follows:

Table 2. Results of Path Coefficient, t-Statistics, and P-Values

	Original Sample	T Statistics	P-Values	Conclusion
Performance Expectancy -> Usage	0.148	3,865	0,000	H1 Accepted
Effort Expectancy -> Usage	0.064	1,624	0.105	H2 Rejected
Social Influence -> Usage	0.136	4,926	0,000	H3 Accepted
Facilitating Conditions -> Usage	0.103	2,123	0.034	H4 Accepted
Hedonic Motivation -> Usage	-0.010	0.217	0.829	H5 Rejected
Price Value -> Usage	0.271	4,787	0,000	H6 Accepted
Habit -> Usage	-0.012	0.840	0.401	H7 Rejected

System Quality -> Usage	0.069	4,198	0,000	H8 Accepted
Service Quality -> Usage	0.207	3,832	0,000	H9 Accepted
Information Quality -> Usage	0.058	4,108	0,000	H10 Accepted
Usage -> Satisfaction	0.866	52,035	0,000	H11 Accepted
Satisfaction -> Loyalty	0.832	45,957	0,000	H12 Accepted

Source: Data Processing Results with SmartPLS 3.2.9 (2023)

In this process, the basis for decision making is determined based on the calculated t value. Where the calculated t is obtained from the path coefficient analysis value, while the t table is obtained by looking at the t distribution percentage point table based on significance level and degree of freedom. In this study, for a 95% confidence level (α 0.05), the t-table value for the one-tailed hypothesis is 1.96.

Looking at the results of data processing shown in Table 4.21 and the basis for making these decisions, the results of this research can be explained as follows:

First Hypothesis (H1)

Based on the results of testing the first hypothesis in Table 4.21, it is known that the performance expectancy variable for usage has a path coefficient value of 0.148 with a calculated t value of $3.865 > 1.96$ and a p-value of $0.000 < 0.05$. Thus, it can be concluded that performance expectancy can positively increase usage of the Mobile KPR Application at PT ABC.

Second Hypothesis (H2)

Based on the results of testing the second hypothesis in Table 4.21, it is known that the effort expectancy variable for usage has a path coefficient value of 0.064 with a calculated t value of $1.624 < 1.96$ and a p-value of $0.105 > 0.05$. Thus it can be concluded that effort expectancy cannot increase usage of the KPR Mobile Application at PT ABC.

Third Hypothesis (H3)

Based on the results of testing the third hypothesis in Table 4.21, it is known that the social influence variable on usage has a path coefficient value of 0.136 with a calculated t value of $4.926 > 1.96$ and a p-value of $0.000 < 0.05$. Thus it can be concluded that social influence can positively increase usage of the Mobile KPR Application at PT ABC.

Fourth Hypothesis (H4)

Based on the results of testing the fourth hypothesis in Table 4.21, it is known that the facilitating conditions variable on usage has a path coefficient value of 0.103 with a

calculated t value of $2.123 > 1.96$ and a p-value of $0.034 < 0.05$. Thus, it can be concluded that facilitating conditions can positively increase usage of the Mobile KPR Application at PT ABC.

Fifth Hypothesis (H5)

Based on the results of testing the fifth hypothesis in Table 4.21, it is known that the hedonic motivation variable on usage has a path coefficient value of -0.010 with a calculated t value of $0.217 < 1.96$ and a p-value of $0.829 > 0.05$. Thus it can be concluded that hedonic motivation cannot increase usage of the Mobile KPR Application at PT ABC.

Sixth Hypothesis (H6)

Based on the results of testing the sixth hypothesis in Table 4.21, it is known that the price value variable on usage has a path coefficient value of 0.271 with a calculated t value of $4.787 > 1.96$ and a p-value of $0.000 < 0.05$. Thus, it can be concluded that price value can positively increase usage of the Mobile KPR Application at PT ABC.

Seventh Hypothesis (H7)

Based on the results of testing the seventh hypothesis in Table 4.21, it is known that the habit variable for usage has a path coefficient value of -0.012 with a calculated t value of $0.840 < 1.96$ and a p-value of $0.401 > 0.05$. Thus it can be concluded that habit cannot increase usage of the Mobile KPR Application at PT ABC.

Eighth Hypothesis (H8)

Based on the results of testing the eighth hypothesis in Table 4.21, it is known that the system quality variable on usage has a path coefficient value of 0.069 with a calculated t value of $4.198 > 1.96$ and a p-value of $0.000 < 0.05$. Thus, it can be concluded that system quality can positively increase usage of the Mobile KPR Application at PT ABC.

Ninth Hypothesis (H9)

Based on the results of testing the ninth hypothesis in Table 4.21, it is known that the service quality variable on usage has a path coefficient value of 0.207 with a calculated t value of $3.832 > 1.96$ and a p-value of $0.000 <$

0.05. Thus, it can be concluded that service quality can positively increase usage of the Mobile KPR Application at PT ABC.

Tenth Hypothesis (H10)

Based on the results of testing the tenth hypothesis in Table 4.21, it is known that the information quality variable on usage has a path coefficient value of 0.058 with a calculated t value of $4.108 > 1.96$ and a p-value of $0.000 < 0.05$. Thus it can be concluded that information quality can positively increase usage of the Mobile KPR Application at PT ABC.

Eleventh Hypothesis (H11)

Based on the results of testing the eleventh hypothesis in Table 4.21, it is known that the variable usage on satisfaction has a path coefficient value of 0.866 with a calculated t value of $52.035 > 1.96$ and a p-value of $0.000 < 0.05$. Thus, it can be concluded that usage of the Mobile KPR Application can positively increase customer satisfaction at PT ABC.

Twelfth Hypothesis (H12)

Based on the results of testing the twelfth hypothesis in Table 4.21, it is known that the variable satisfaction with loyalty has a path coefficient value of 0.832 with a calculated t value of $45.957 > 1.96$ and a p-value of $0.000 < 0.05$. Thus, it can be concluded that customer satisfaction at PT ABC can positively increase customer loyalty at PT ABC.

CONCLUSION

Performance expectancy can positively increase usage of the Mobile KPR Application at PT ABC. Effort expectancy cannot increase usage on the KPR Mobile Application at PT ABC. Social influence can positively increase usage of the Mobile KPR Application at PT ABC. Facilitating conditions can positively increase usage of the Mobile KPR Application at PT ABC. Hedonic motivation cannot increase usage on the Mobile KPR Application at PT ABC. Price value can positively increase usage of the Mobile KPR Application at PT ABC. Habit cannot increase usage on the Mobile KPR Application at PT ABC. System quality can positively increase usage of the Mobile KPR Application at PT ABC. Service quality can positively increase usage on the Mobile KPR Application at PT ABC. Information quality can positively increase

usage of the Mobile KPR Application at PT ABC. Usage on the KPR Mobile Application can positively increase customer satisfaction at PT ABC. Customer satisfaction at PT ABC can positively increase customer loyalty at PT ABC.

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