

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron¹, Hedi Cupiadi², Deri Alan Kurniawan³, Artika Dewi⁴, Sri Ayuni⁵

¹²³⁴⁵Universitas Garut, Indonesia

Correspondent: wufron@uniga.ac.id¹

Received : November 6, 2024

Accepted : May 26, 2025

Published : July 31, 2025

Citation: Wufron., Cupiadi, H., Kurniawan, D, A., Dewi, A., Ayuni, S. (2025). Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness. *Ilomata International Journal of Management*, 6(3), 1034-1052.

<https://doi.org/10.61194/ijjm.v6i3.1493>

ABSTRACT: This study examines the influence of the performance of Bank Negara Indonesia (BNI) Virtual Account (VA) on the satisfaction of Garut University students in paying Single Tuition Fees (UKT). This study uses a quantitative approach with Perceived Ease of Use and Perceived Usefulness as the variables analyzed to measure the influence on VA performance and user satisfaction. The purpose of this study is to find out how the perception of convenience and usability of VA affects student satisfaction. The results show that both the perception of ease of use and the perception of technology benefits contribute significantly to the improvement of VA performance. This improvement in VA performance then has a positive impact on student satisfaction. The research also identified factors such as operational efficiency, security, integration, and customer experience as critical elements of VA performance. Most students find that using VA makes the payment process easier, reduces the time required, and improves the overall user experience. The conclusion of this study is that the perception of the convenience and benefits of VA BNI is very important in creating student satisfaction in the UKT payment process. This suggests that efforts to continuously improve the performance of VA services will contribute to higher user satisfaction.

Keywords: Performance, Satisfaction, Ease of Use, Usefulness.



This is an open access article under the CC-BY 4.0 license

INTRODUCTION

Economics aims to solve problems in human life by using the theories and principles of economic systems to predict and explain economic behavior ([Ahmad, Mustari, & Hasan, 2020](#)). The development of information technology allows companies and organizations to improve their performance, especially in management, marketing, and banking ([Damayanti, 2019](#)). Marketing, as the process of meeting needs and wants, is important to create customer satisfaction ([Kotler & Keller, 2016a](#)). Satisfaction is a response to the fulfillment of a person's needs and desires, which is measured by comparing performance with expectations ([Purnama, 2016](#)). Consumer satisfaction studies, particularly related to technology, focus on convenience and usability ([DeLone & McLean,](#)

[2003](#)). Technology, such as virtual account services, aims to provide convenience and satisfaction through the automation of the transaction process ([Jogiyanto, 2015](#)). The University of Garut adopts a virtual account for tuition payments, which provides benefits for students by allowing payments without having to come to the bank ([Sugiyono, 2014](#)). This study aims to understand the perception of ease of use, benefits of use, and user satisfaction of BNI virtual accounts for the payment of tuition fees for Garut University students.

Economics is a field of science that solves the problems of human life through breakthroughs in every economic source based on the theory and principles of an effective and efficient economic system that is used to predict and explain economic behavior ([Venkatesh & David, 2016](#)). Nowadays, the presence and development of information technology that is increasingly up-to-date, companies and organizations can take advantage of information technology to improve their performance to spread rapidly both in the fields of economics, management, marketing, and banking ([Sugiyono, 2017a](#)). An organization is required to be able to manage its goals well, from a marketing point of view where a usefulness and convenience of a service can provide benefits to its users well as marketing is a process in which individuals or organizations can meet needs and wants ([Kotler & Keller, 2016b](#)). Needs are conditions that are felt due to certain dissatisfactions while desire is a strong will to satisfy needs based on specific things ([Luthans, 2016](#)).

In simple terms, satisfaction is a response or output to the fulfillment of someone's wants and needs. A person's level of feeling will emerge after comparing their perceived performance with their expectations ([Bayu Pramutoko, 2020](#)). The measure of satisfaction is considered important because the positive influence of a consumer has a relationship with the product or service they have been using, so satisfaction is an important factor in business activities as a response and material for evaluating suitability ([Setyo & Rahmawati, 2015](#)). Generally, a study on satisfaction with using a product or service related to technology is the convenience and usefulness of the technology ([Rahman & Sebastian, 2020](#)). This is because the state of a person who wants to use a certain technological system does not require more effort, in other words, reducing one's effort in doing something ([Simanungkalit, 2020](#)). When a person considers the use of a technology system to be beneficial and easy to use, it can affect a person's behavior positively ([Tyas & Darma, 2017](#)).

Technology applied to a service aims to provide convenience, benefits, and satisfaction to users through the automation process ([Lovelock, Wirtz, & Mussry, 2011](#)). Nowadays, to replace manual transaction services, there is a transaction automation service called Virtual Account as a payment method that makes it easier for someone to make payments ([Putri, Utomo, & Murwani, 2018](#)). One of the educational institutions in Garut, namely the University of Garut, has begun to implement a virtual account payment method in collaboration with Bank Negara Indonesia to use the service as a tuition payment system for every Garut University student ([Sugihartono & dkk, 2016](#)). The convenience and benefits of using virtual account services for students can make it easier for them to pay tuition fees wherever they are without having to go to the Bank directly ([Damayanti, 2019](#)).

The impracticality of the payment process in universities that still use a manual system can be replaced by the automation of another transaction service. The convenience and benefits of using

virtual account transaction services can be used as an alternative method for Garut University students ([Setyawati, 2020](#)). Based on the introduction, the purpose of this study is to find out the overview of Perceived Ease of Use, Perceived Usefulness, and BNI Virtual Account User Satisfaction for UKT payments for Garut University students, to find out the effect of Perceived Ease of Use on BNI Virtual Account User Satisfaction for UKT payments for Garut University students, to find out the influence of Perceived Usefulness on BNI Virtual Account User Satisfaction for student UKT payments Garut University, and to find out the influence of Perceived Ease of Use on User Satisfaction through BNI's Perceived Usefulness Virtual Account for the payment of UKT for Garut University students ([Irfansyah & Raharjo, 2021](#); [Wanardi & Triyono, 2019](#)).

Terdapat beberapa penelitian yang relevan dengan penelitian ini. Teknologi yang mudah digunakan berpotensi meningkatkan niat pengguna untuk menggunakan layanan, yang berujung pada peningkatan kepuasan. Dalam konteks pendidikan, sistem pembayaran berbasis teknologi yang mudah dipahami mempermudah aksesibilitas bagi mahasiswa dalam memenuhi kewajiban pembayaran ([Damayanti, 2019](#)). Virtual Account, berkontribusi pada pengalaman pengguna yang lebih baik. Ketika mahasiswa merasa bahwa suatu teknologi membantu mereka dalam melakukan transaksi dengan lebih efisien, mereka akan lebih cenderung merasa puas ([Rahman & Sebastian, 2020](#)). Layanan yang memiliki keandalan, kenyamanan, serta otomatisasi, seperti layanan virtual account, meningkatkan efisiensi transaksi pembayaran. Studi ini juga menemukan bahwa semakin mudah dan bermanfaat teknologi tersebut, semakin tinggi tingkat kepuasan pengguna ([DeLone & McLean, 2003](#)). perceived ease of use dan perceived usefulness adalah variabel penting dalam memahami penerimaan teknologi oleh pengguna. Studi ini menjelaskan bahwa kedua variabel tersebut memiliki pengaruh signifikan terhadap tingkat kepuasan dan loyalitas pengguna dalam menggunakan teknologi baru. Dalam konteks pembayaran UKT, model ini relevan untuk mengevaluasi kepuasan mahasiswa terhadap sistem virtual account yang ditawarkan oleh Bank Negara Indonesia ([Davis, 2016](#)). virtual account, mengurangi risiko kesalahan transaksi, mempercepat proses pembayaran, dan memberikan kemudahan bagi mahasiswa dalam menyelesaikan transaksi pembayaran tanpa harus datang langsung ke bank ([Setyo & Rahmawati, 2015](#)).

From the explanation above, the state of the art is determined as follows. Studies on payment technology systems, such as Virtual Accounts, highlight their significant relevance and contribution to efficiency and user satisfaction in higher education. Based on the [DeLone and McLean Information System Success Model \(2003\)](#), perceived ease of use (PEU) and perceived usefulness (PU) are key variables that influence technology acceptance. [Venkatesh and Davis \(2000\)](#) further support that PU and PEU not only affect technology adoption but also impact user satisfaction and loyalty. In the context of educational payment services, research by [Damayanti \(2019\)](#) and [Setyo & Rahmawati \(2015\)](#) reveals that automated services like Virtual Accounts enhance user experiences by reducing transaction time and complexity. This technology enables students to make payments without the constraints of time and location, fostering accessibility and convenience. However, other studies, such as [Simanungkalit \(2020\)](#), indicate that while PEU and PU significantly contribute to system performance, factors such as reliability, security, and interface aesthetics remain critical for ensuring user satisfaction. This study emphasizes the role of the BNI

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron, Cupiadi, Kurniawan, Dewi, and Ayuni

Virtual Account in improving student satisfaction at Garut University in the context of tuition payments. Unlike previous studies, this research examines the impact of PEU and PU on Virtual Account performance and its implications for student satisfaction, with a specific focus on technical aspects such as operational efficiency and user experience.

METHOD

This study employs a quantitative approach, utilizing Path Analysis to examine the relationships among the variables. Data were collected through a structured questionnaire distributed to 380 active students at Garut University, selected using a purposive sampling technique to ensure respondents were familiar with the Virtual Account system.

The questionnaire consists of 20 items, measured using a 5-point Likert scale, and was validated through expert review and a pilot test. The reliability of the instrument was confirmed with a Cronbach's Alpha of 0.85, indicating high internal consistency. Indicators for each variable (Perceived Ease of Use, Perceived Usefulness, Virtual Account Performance, and Student Satisfaction) were adapted from established models by [Davis \(1989\)](#) and [DeLone & McLean \(2003\)](#). Data were analyzed using AMOS software, starting with a classical assumption test to ensure normality, multicollinearity, and heteroscedasticity. Path Analysis was conducted to evaluate direct and indirect effects among variables, with significance assessed at a p-value < 0.05.

RESULT AND DISCUSSION

Perceived Ease Of Use, Perceived Usefulness, Performance of Bank Negara Indonesia Virtual Account, and Student Satisfaction in Paying UKT

The following are the results of the descriptive analysis of the Perceived Ease Of Use Virtual Account BNI UKT Payment. Based on the distribution of the questionnaire to 380 active student respondents at the University of Garut, the results of *the perceived ease of use variable* were obtained with the description described as follows:

Tabel 1. Perceived Ease Of Use Virtual Account BNI Pembayaran UKT

Dimension	Indicator	Score	Criterion
<i>Easyness</i>	Ease of use	410	Excellent
	Can be run by any individual	396	Good
	Makes work easier	409	Good
Average Score		405	Good
<i>Clear and Understandable</i>	Displays clear information	399	Good
	Understandable	401	Good
	Level of understanding	403	Good

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron, Cupiadi, Kurniawan, Dewi, and Ayuni

Dimension	Indicator	Score	Criterion
Average Score		401	Good
Easy to Learn	Ease of learning	408	Good
	Simplicity level	397	Good
	Level of accessibility	402	Good
Average Score		402	Good
Overall Easiness	Overall perceived level	395	Good
	Overall level of understanding	395	Good
	Overall level of operation	411	Excellent
Average Score		400	Good
Overall Average Score		402	Good
Score Minimum		395	Good
Score Maximum		411	Excellent

Source: Data Processing (2024)

Based on the table above, the average assessment score obtained is 405 with good criteria. Students have ease when they use BNI *virtual accounts* when making payments because the process is simple and can be run by every individual either through BNI mobile banking applications, ATMs, or third-party payment service provider applications so that they feel that payments through BNI virtual accounts can make their work easier. BNI virtual accounts can also display clear and understandable information through process data displayed when carrying out payment activities such as entering virtual account numbers and entering the nominal amount that has been billed in the billing letter so that students can have a good level of understanding in making virtual account payments. Information technology is equipped with instructions that can make it easier for users to access, students are quite easy to learn features that can be explained by icons and buttons that are given images or icons and labels that describe the information contained as simply as possible to form the level of user simplicity, so that students can easily access BNI virtual accounts. Therefore, students feel that overall virtual account payments are easy to use and can be understood so that they can operate BNI virtual account payments properly. So based on the indicators in the dimensions above, it means that overall the BNI virtual account as a payment for fixed tuition for Garut University students is easy to use.

Based on the table above, there is the smallest score on the overall level of perceived level indicator and the overall level of understanding with a score of 395 with good criteria, but there are still a small number of students who are ordinary and have not adapted to the virtual account payment. Students consider that BNI virtual account payments can only be made with the BNI mobile banking application or ATM, even though students can make transfers using virtual accounts with other bank options or through third-party payment services such as LinkAja or Dana. So BNI should provide an easy-to-understand explanation of how to use payments with virtual account numbers accompanied by other payment alternatives when not all Garut University students have BNI mobile banking. BNI can provide socialization of procedures for using BNI virtual accounts accompanied by alternative virtual account payment media during the initial activities of student lectures or student orientation periods. While the highest score is an indicator of the overall level

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron, Cupiadi, Kurniawan, Dewi, and Ayuni

of operation of 411 with very good criteria, where students consider that the operation of BNI virtual account as a medium of payment for fixed tuition is overall easy to operate, because students only need to follow the instructions available when downloading the payment bill and realize their understanding. Most students have information and insight that fixed tuition payments with BNI virtual account numbers can not only be made in the BNI mobile banking application but can also be done by other banks or third-party services. So users are considered to understand and understand enough in operating virtual accounts well. Thus, the University of Garut will be very good if it maintains the tuition payment system. The ease of operating a BNI virtual account for the tuition payment system at the University of Garut is considered quite effective.

The researcher conducted an analysis of the Perceived Usefulness Virtual Account BNI UKT Payment for University of Garut Students based on its dimensions and indicators. The following are the results of a descriptive analysis of the Perceived Usefulness Virtual Account BNI UKT Payment. Based on the distribution of the questionnaire to 380 active student respondents at the University of Garut, the results of *the perceived usefulness* variable with the description are described as follows:

Table 2. Perceived Usefulness Virtual Account BNI UKT Payment

It	Indicator	Score	Criterion
Effectiveness	Effectiveness level	404	Good
	Time savings	410	Excellent
	Efficiency level	409	Good
	Average Score	408	Good
Accomplish Faster	Speed level	412	Excellent
	Punctuality level	400	Good
	Validity level	397	Good
	Average Score	403	Good
Usefull	Usability level	403	Good
	Reliability level	406	Good
	Level of need	424	Excellent
	Average Score	411	Excellent
Advantageous	Support	418	Excellent
	Profit rate	397	Good
	Quality level	428	Excellent
	Average Score	414	Excellent
Overall Average Score		409	Good
Score Minimum		397	Good
Score Maximum		428	Excellent

Source: Data Processing (2023)

Based on the table above, the average assessment score obtained is 409 with good criteria. Students of the University of Garut feel the effectiveness of paying tuition fees using BNI *virtual accounts* compared to manual, they said that they no longer need to queue at the bank with several other

customers. Students also said that paying fixed tuition fees with BNI *virtual accounts* can save them time, do not need to come too early and do not need to be afraid of bank operating hours. Just like the level of effectiveness and time saving, the efficiency of using BNI *virtual accounts* to pay tuition fees still makes it can be used anywhere and anytime it is not pegged to bank operating hours, students also add that payments can be made at the nearest ATM so that they stay at the same destination but do not require much effort. The payment process can be completed faster than manual and punctuality when carrying out the data validity process which does not take long when making payments, because students only enter a virtual account number and then continue to enter the nominal amount of money that has been billed to each faculty at the University of Garut so that the validation process is completed quickly. In terms of usability and reliability, students said that tuition payments using BNI *virtual accounts* are quite useful and can be said to be reliable for various reasons, including because it does not require double validation to the finance department of each faculty at the University of Garut and also the financial staff does not need to synchronize the manual data of students who have paid. Students also think that BNI *virtual accounts* are in accordance with their needs, for example, when some students do not find a bank in their city while they have to pay the bills immediately, besides that because of the need for technology for the progress of an organization today. At the profit level, some students argue that for those who do not have BNI mobile banking to make virtual account payments, they are charged a transaction fee for making payments through banks other than BNI, in addition to the transaction fees charged by students, they feel quite benefited for the same reason, namely convenience. In addition, students also feel that the quality of payments through BNI virtual accounts is good for the campus as an effort to take advantage of technological advances in the campus environment. So based on the indicators in the dimensions above, which means that overall the use of BNI virtual accounts as a UKT payment system for Garut University students is useful.

Based on the table above, there is an indicator with the smallest score, namely the indicator of the level of validity and the level of profit of 397. At the level of validity, some students sometimes get problems when they enter the virtual number, then in the middle of the data matching process, a message appears that the virtual account number entered is "failed" repeatedly, so it is necessary to repeat the process and cannot proceed to the stage of filling in the nominal tuition fee even though they have matched and copied the virtual account number from the payment bill. BNI as a service provider must ascertain where the cause of the technical error comes from and how to handle it so that students get to handle it when it happens. In addition, at the profit level, students who do not have BNI mobile banking are charged a transaction fee for making fixed tuition payments through bank intermediaries other than BNI so that they do not feel the benefits of the payment technicalities. Therefore, BNI should provide information related to alternatives that students can use to make payments other than through other bank intermediaries, for example, choosing other alternatives to avoid transaction fees through digital wallets or e-wallets which are currently widely available and trusted such as Dana, LinkAja, or OVO. While the highest score is a quality level indicator of 428 with very good criteria, where students consider the payment system to be of high quality based on the latest technological advances that can meet the needs of every individual and organization in addition to its usefulness when students do not have enough time to be able to visit the Bank directly to make payments. With this circumstance, Garut University has a good choice in handling and transforming the manual payment system into an automatic

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron, Cupiadi, Kurniawan, Dewi, and Ayuni

system that can be done anywhere and anytime. Because it supports the ease of student activities and the sustainability of the institution by utilizing technological advances in it is the same as playing a role in improving the quality of the campus which is getting better.

The researcher conducted an analysis of the Virtual Account Performance of Bank Negara Indonesia based on its dimensions and indicators. The following are the results of a descriptive analysis *of the Performance of Bank Negara Indonesia's Virtual Account*. Based on the distribution of the questionnaire to 380 active student respondents of the University of Garut, the results of the user satisfaction variable with the description are described as follows:

Table 3. *Virtual Account Performance of Bank Negara Indonesia*

Dimension	Indicator	Score	Criterion
Operational Efficiency	Automated payment verification process	420	Excellent
	Time required to record payments in real-time	418	Good
	Reduced operational costs due to reduced recording errors	410	Excellent
Average Score		412	Excellent
Security	Level of compliance with cybersecurity protocols and data encryption	414	Good
	<i>Number and frequency of fraud incidents or data leaks related to virtual accounts</i>	409	Excellent
	Implementation of a unique account number system for each transaction	416	Excellent
Average Score		415	Good
Integration and Scalability	Easy integration of virtual accounts with financial systems	397	Good
	The system's ability to handle the growth in transaction volume without changing key infrastructure	398	Good
	The speed of adjusting the virtual account system to changes in the company's operational needs	410	Excellent
Average Score		398	Good
Customer Experience	Time required to complete a transaction from the customer's side	411	Good
	Customer satisfaction levels related to ease	415	Good
	Customer loyalty demonstrated through service reuse rates	419	Excellent
Average Score		417	Excellent
Overall Average Score		416	Good
Score Minimum		397	Good
Score Maximum		420	Excellent

Source: Data Processing (2024)

The table shows the assessment of the performance of virtual banking accounts based on four main dimensions: Operational Efficiency, Security, Integration and Scalability, and Customer Experience. In the Operational Efficiency dimension, there are three indicators measured, namely

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron, Cupiadi, Kurniawan, Dewi, and Ayuni

the automatic payment verification process, real-time payment recording time, and the reduction of operational costs due to the reduction of recording errors. These indicators scored 420, 418, and 410, respectively, with an average of 412, so this dimension is categorized as "Very Good."

The Security dimension is also measured through three indicators, namely the level of compliance with cybersecurity protocols, the number and frequency of fraud incidents, and the application of a unique account number for each transaction. This dimension obtained an average score of 415, with the highest score on the implementation of the unique account number system (416), which was categorized as "Good." In the Integration and Scalability dimension, the indicators measured are the ease of integration of virtual accounts with the financial system, the system's ability to handle transaction volume growth, and the speed of system adjustment to changes in operational needs. Despite getting an average score of 398 and being categorized as "Good," this dimension indicates that there is room for improvement.

The final dimension, Customer Experience, is measured through deal completion time, customer satisfaction levels, and customer loyalty, with an average score of 417 and categorized as "Very Good." The highest overall score is 420, while the lowest score is 397. Overall, the average performance of these banking virtual accounts is 416, which is categorized as "Very Good," indicating that virtual accounts have provided adequate performance in various important aspects of banking.

The researcher conducted an analysis of the User Satisfaction of BNI Virtual Account UKT Payment for Garut University Students based on its dimensions and indicators. The following are the results of a descriptive analysis of BNI Virtual Account User Satisfaction for UKT Payments. Based on the distribution of the questionnaire to 380 active student respondents of the University of Garut, the results of the user satisfaction variable with the description are described as follows:

Table 4. User Satisfaction of BNI Virtual Account UKT Payment

Dimension	Indicator	Score	Criterion
Content	Information has functions as needed	410	Excellent
	Module	408	Good
	Conformity level	415	Excellent
	Average Score	411	Excellent
Accuracy	Precise information	403	Good
	<i>Accurate output</i>	410	Excellent
	Data accuracy level	415	Excellent
	Average Score	409	Good
Format	Attractive display	386	Good
	Display aesthetics	389	Good
	Display can make it easier	413	Excellent
	Average Score	396	Good
Easy of use	<i>Ease of data entry</i>	402	Good
	Ease of process	406	Good

Virtual Account Performance on Student Satisfaction: An Analysis through Perceived Ease of Use and Usefulness

Wufron, Cupiadi, Kurniawan, Dewi, and Ayuni

	Ease of <i>output</i>	420	Excellent
	Average Score	409	Good
Timeliness	Accuracy of the matching process	402	Good
	Present the necessary data	417	Excellent
	Displaying process information	422	Excellent
	Average Score	414	Excellent
	Overall Average Score	408	Good
	Score Minimum	386	Good
	Score Maximum	422	Excellent

Source: Data Processing (2024)

Based on the table above, the average assessment score obtained is 422 with very good criteria. The content of the information displayed when the payment process has the appropriate function, there is no explanation or details that are difficult to understand. Students are helped by modules and service content in virtual *accounts*. The module referred to in the indicator is a guide where the user must enter the virtual and nominal account number. While the intention of the service content indicator is that there is not much data that must be entered to carry out the BNI virtual account fixed tuition payment process , students only need to enter one virtual account number and nominal. The information displayed is accurate as evidenced when students enter the virtual account number correctly, it will immediately enter at the stage of entering the nominal, then *the output* displayed is also accurate because students also believe that the virtual account number is only owned by one student and will not be confused, let alone the same because the number given by BNI is unique.

On the display of the BNI *virtual account* payment process , students find it less attractive because it has a fairly small font size when compared to the breadth of *virtual account output*. Students also felt that the appearance of BNI's *virtual account* lacked aesthetics, they said that at least they used a slightly thicker font than the current one so that it could be seen clearly. Apart from aesthetics and font size, the display of the *virtual account* is quite easy for them to understand the flow and the payment *output* results are quite understandable. Not much different from the module indicators and service content, in the indicator of ease of *data input*, students feel easy when entering the data they have in the form of virtual account numbers, there is no *delay* when typing virtual account numbers.

Data processing is also quite easy, it does not take long until at the end of the output payment , students feel easy to understand or digest what is displayed. Students are quite satisfied with the timeliness during the process of matching the data entered when making payments. Students also feel that *virtual accounts* can display information during the process such as the nominal amount billed, which means that the first process can run smoothly and then be continued to the next process. The data presented at the time of exit is in accordance with the necessary such as the presentation of the reference number, the date and time of the transaction, the type of transaction, the virtual account number, the payer's student name, the admin fee, and the total payment. So

based on the indicators in the dimensions above, which means that overall students are satisfied using *the BNI virtual account* as a UKT payment system for Garut University students.

Based on the table above, there is an indicator with the smallest score, namely an attractive display indicator of 386 with good criteria, where students think that the display on the virtual account service is less attractive because the font size displayed during the process and the output looks small which makes some students feel uncomfortable reading and seeing. So Bank BNI as a service provider should fix and update how the display of letters on the BNI virtual account service should provide comfort and satisfaction to its users. While the highest score is an indicator displaying process information of 428 with very good criteria. If some students have problems when the virtual number entered is "failed", some other students say that the information displayed during the payment process is successful so that they can proceed to the next stage and complete the payment. So that BNI has satisfaction in using BNI's virtual account for fixed tuition payments as set by the University of Garut but by continuing to improve the shortcomings and improve the quality of the technology system compared to the current one. Good user satisfaction can indirectly provide a good image as well as be an example for other campuses.

The Effect of Perceived Ease Of Use on the Performance of Bank Negara Indonesia Virtual Accounts

In the table, the relationship between the Perceived Ease of Use (PEU) and Virtual Account Performance (PVA) variables has a native coefficient of 0.244, which indicates a positive direction. A P-value of 0.038 supports the significance of this relationship, as it is below the threshold of 0.05. Thus, we can reject the null hypothesis and conclude that Perceived Ease of Use has a significant influence on Virtual Account Performance.

Tabel 5. The Effect of Perceived Ease Of Use on the Performance of Bank Negara Indonesia Virtual Accounts

	Original sample (O)	Sample mean (M)	Standard deviation (S TDEV)	T statistics (O/S TDEV)	P values	2.50%	97.50%
PEU -> PVA	0.244	0.318	0.113	2.33	0.038	0.03	0.516

Source: Data Processing (2024)

Increasing perceived ease of use (PEU) is a key factor that is expected to have a positive impact on virtual account performance (Virtual Account Performance, PVA). PEU refers to the extent to which users feel that the use of a system or technology will be free from difficult and complicated effort. In the context of virtual accounts, PEU includes dimensions such as an intuitive user interface, easy navigation, and adequate technical support. Indicators that can be used to measure PEU include ease of making transactions, speed in accessing information, and user comfort levels when interacting with the system. Previous research has shown that users tend to be more satisfied and more often use systems that they find easy to use ([Davis, 1989; Venkatesh & Davis, 2000](#)).

In this case, there is a positive and significant relationship between PEU and PVA. When users feel the convenience of using a virtual account, they are more likely to actively participate and take advantage of the features offered. This will lead to an increase in virtual account performance, which can be measured through various indicators, such as transaction frequency, service speed, and success rate in completing transactions. Research by [Gefen et al. \(2003\)](#) confirms that PEU not only increases the use of technology, but also contributes to user trust and satisfaction.

For example, if users find that the process of registering a virtual account and managing transactions is done in a simple and fast way, they will be more eager to use the service on an ongoing basis. This shows that PEU acts as a mediator that connects ease of use with better results in the use of virtual accounts. Thus, improving the PEU dimension through good system design and user training can have a significant impact on PVA. This research underscores the importance of paying attention to user perception of ease of use as a strategy to improve virtual account performance which ultimately contributes to user satisfaction and loyalty.

The Effect of Perceived Usefulness on the Performance of Bank Negara Indonesia Virtual Accounts

In the table, the relationship between the Perceived Usefulness (PU) and Virtual Account Performance (PVA) variables has a native coefficient of 0.347, which indicates a positive direction. In addition, a p-value of 0.043 indicates the significance of the relationship, as this value is below the threshold of 0.05. This means that we can reject the null hypothesis and conclude that Perceived Usefulness has a significant effect on Virtual Account Performance.

Tabel 6. The Effect of Perceived Usefulness on the Performance of Bank Negara Indonesia Virtual Accounts

	Original sample (O)	Sample mean (M)	Standard deviation (S TDEV)	T statistics (O/S TDEV)	P values	2.50%	97.50%
PU -> PVA	0.347	0.421	0.216	2.435	0.043	0.135	0.621

Source: Data Processing (2024)

In the context of analyzing the relationship between the variables Perceived Usefulness (PU) and Virtual Account Performance (PVA), a native coefficient of 0.347 was obtained, which shows the positive direction of the influence of PU on PVA. This positive coefficient indicates that the higher the user's perception of the usability of a virtual account, the better the account will perform. PU reflects the extent to which users believe that the use of a technology or system will improve their performance in achieving a specific goal. In this case, the dimensions of PU can include functional benefits, such as efficiency in conducting transactions, increased productivity, and easy access to relevant information.

Indicators for measuring PU in the context of PVA can include how quickly and easily users can complete transactions, how well the system assists users in managing their accounts, and the extent to which users feel that virtual accounts provide added value in their daily activities. Research

conducted by [Davis \(1989\)](#) shows that PU is a key factor in determining the acceptance of technology, where users tend to adopt technologies that they consider beneficial to them.

Furthermore, the analysis results showed a p-value of 0.043, which is below the significance threshold of 0.05. This means that we can reject the null hypothesis, which states that there is no relationship between PU and PVA. In other words, there is sufficient evidence to conclude that PU has a significant effect on PVA. These findings are in line with a study conducted by [Venkatesh and Davis \(2000\)](#), which confirmed that PU not only affects the user's desire to use a system, but also has a direct impact on how they utilize the system effectively. As such, it is important for virtual account developers to focus on improving the features and benefits offered, so that users can experience the real usability of the system. This increased understanding of the usability of the system not only contributes to the performance of the system itself, but it can also improve overall user satisfaction, which will ultimately drive wider adoption and use of virtual accounts.

The Effect of Bank Negara Indonesia Virtual Account Performance on Student Satisfaction in Paying UKT

The relationship between the Virtual Account Performance (PVA) and Student Satisfaction (KM) variables has a native coefficient of 0.46, which indicates a positive relationship. A p-value of 0.048 supports the significance of this relationship, as it is below the threshold of 0.05. This shows that we can reject the null hypothesis and conclude that Virtual Account Performance has a significant influence on Student Satisfaction.

Table 7. The Effect of Bank Negara Indonesia Virtual Account Performance on Student Satisfaction in Paying UKT

	Original sample (O)	Sample mean (M)	Standard deviation (S TDEV)	T statistics (O/S TDEV)	P values	2.50%	97.50%
PVA -> KM	0.46	0.524	0.319	2.54	0.048	0.24	0.726

Source: Data Processing (2024)

The analysis of the relationship between the Virtual Account Performance (PVA) and Student Satisfaction (KM) variables showed a native coefficient of 0.46, which showed a significant positive relationship between the two variables. This positive coefficient indicates that improved virtual account performance contributes to increased student satisfaction. PVA includes various aspects such as speed in transaction processing, system reliability, and ease of access that can affect the user experience. In this context, the dimensions of PVA can include the effectiveness of use, efficiency in completing tasks, and satisfaction with the services provided by virtual accounts.

Indicators that can be used to measure PVA in the context of student satisfaction include how quickly students can complete payments or transactions, how well the system handles complaints or problems that arise, and how easily students can access the necessary information through virtual accounts. Previous research has shown that the good performance of a system has a great influence on the level of user satisfaction ([Bhattacharjee, 2001](#); [DeLone & McLean, 2003](#)). In

addition, a p-value of 0.048 supports the significance of this relationship, as it is below the threshold of 0.05. This allows us to reject the null hypothesis that there is no relationship between PVA and KM. These findings show that PVA has a significant influence on student satisfaction. In the context of education, student satisfaction is not only related to the quality of teaching, but is also greatly influenced by the effectiveness of the systems they use, including virtual accounts that facilitate their various academic processes.

For example, if students feel that the performance of a virtual account allows them to make transactions easily and quickly, they will be more satisfied with their learning experience. This shows the importance of ensuring that the virtual account system functions optimally to support academic activities. Research by [Tam and Oliveira \(2017\)](#) confirms that an effective and efficient system can improve user satisfaction, which in turn can increase student retention and engagement. Thus, it is important for educational institutions to continue to improve the performance of their virtual accounts, in order to provide a positive experience for students. These efforts will not only increase student satisfaction, but also contribute to academic achievement and loyalty to educational institutions.

The Effect of Perceived Ease Of Use on Virtual Account Performance through Bank Negara Indonesia Virtual Account Performance

The relationship between the variables Perceived Ease of Use (PEU), Virtual Account Performance (PVA), and Student Satisfaction (KM) shows the indirect influence of PEU on KM through PVA. The original coefficient of 0.563 indicates that there is a positive influence of PEU on PVA, which further contributes to the increase in KM.

Table 8. The Effect of Perceived Ease Of Use on Virtual Account Performance through Bank Negara Indonesia Virtual Account Performance

	Original sample (O)	Sample mean (M)	Standard deviation (S TDEV)	T statistics (O/S TDEV)	P values	2.50%	97.50%
PEU -> PVA - > KM	0.563	0.627	0.422	2.645	0.043	0.345	0.831

Source: Data Processing (2024)

A p-value of 0.043 supports the significance of this indirect influence, as the value is below the threshold of 0.05. Thus, we can reject the null hypothesis and conclude that there is an indirect influence of PEU on KM through significant PVA.

The relationship between the variables Perceived Ease of Use (PEU), Virtual Account Performance (PVA), and Student Satisfaction (KM) reflects an indirect influence model, where PEU has a positive impact on KM through the intermediary of PVA. In this analysis, the original coefficient of 0.563 indicates that there is a significant influence of PEU on PVA. This means that the higher the perception of ease of use of a system, the better the performance of the virtual account perceived by users. PEU, in this context, refers to how easy it is for students to feel when

using virtual accounts to interact with the services provided by educational institutions. The dimensions of the PEU can include ease of navigation of the interface, clarity of instructions for use, and speed of system response. Measurable indicators include ease of registration, transaction speed, and difficulty in accessing the information needed.

PVA functions as a mediator that bridges the relationship between PEU and KM. PVA includes aspects such as the effectiveness of the system in facilitating the academic process, stability in conducting transactions, and user satisfaction with the services offered. In this case, PVA indicators can include the speed of transaction completion, the success rate in using the feature, as well as positive feedback from users. Research by [Venkatesh and Davis \(2000\)](#) shows that PEU has a strong influence on the use of technology, which in turn contributes to the expected results.

In addition, the p-value of 0.043 obtained in this analysis supports the significance of the indirect influence of PEU on KM through PVA, as the value is below the threshold of 0.05. This allows us to reject the null hypothesis that states that there is no relationship between PEU and KM. These findings show that the increase in the ease of use of virtual accounts not only improves the performance of the system, but also contributes significantly to student satisfaction. For example, if students feel that they can use a virtual account easily and efficiently, they will be more likely to feel satisfied with the services provided, which will encourage their active engagement and participation in the learning process.

Therefore, it is important for educational institutions to focus on developing and improving the ease of use aspects in their virtual account systems. By paying attention to the factors that affect PEU, such as intuitive interface design and responsive technical support, institutions can improve the performance of virtual accounts which ultimately contribute to increased student satisfaction. Research by [Bhattacharjee \(2001\)](#) also supports these findings, confirming that positive experiences in using technology have a significant impact on satisfaction and intention to continue using the system.

The Effect of Perceived Usefulness on Virtual Account Performance through Bank Negara Indonesia Virtual Account Performance

The relationship between Perceived Usefulness (PU), Virtual Account Performance (PVA), and Student Satisfaction (KM) shows that there is an indirect influence of PU on KM through PVA.

Tabel 9. The Effect of Perceived Usefulness on Virtual Account Performance through Bank Negara Indonesia Virtual Account Performance

	Original sample (O)	Sample mean (M)	Standard deviation (S TDEV)	T statistics (O/S TDEV)	P values	2.50%	97.50%
PU -> PVA -> KM	0.666	0.73	0.525	2.75	0.048	0.45	0.936

Source: Data Processing (2024)

A p-value of 0.048 supports the significance of this influence, as the value is below the threshold of 0.05. This allows us to reject the null hypothesis and conclude that there is an indirect influence of PU on KM through significant PVA. The relationship between Perceived Usefulness (PU), Virtual Account Performance (PVA), and Student Satisfaction (KM) shows that there is an indirect influence of PU on KM mediated by PVA. These findings indicate that students' perception of the usability of virtual accounts not only has a direct impact on their satisfaction, but also through improving the performance of the systems they use. The coefficients generated from this analysis show the positive influence of PU on PVA, which means that the higher the students' perception of the usability of virtual accounts, the better the performance of the system in meeting their needs. The dimensions of PU can include various aspects, such as perceived functional benefits, efficiency in completing transactions, and increased productivity in academic activities.

Measurable indicators to evaluate PU in the context of PVA include how much time students spend making transactions, the extent to which virtual accounts help students manage payments and academic information, and their level of satisfaction with the features available in the system. For example, if students feel that virtual accounts help them avoid long lines for payments and provide quick access to important information, then their perception of the system's usability will increase. Research by [Davis \(1989\)](#) shows that PU is one of the main factors influencing users' decisions to adopt new technologies.

A p-value of 0.048 supports the significance of this indirect influence, as it is below the threshold of 0.05. Thus, we can reject the null hypothesis that states that there is no relationship between PU and KM. These findings show that there is a significant relationship between PU and KM through PVA. This means that the perceived increased usability of virtual accounts contributes to the performance of the system, which in turn has a positive impact on student satisfaction. Research by [Venkatesh and Davis \(2000\)](#) supports these results by showing that PU not only influences the user's desire to use the system, but can also improve the user experience leading to higher satisfaction.

As such, it is important for developers and virtual account service providers to focus on improving features and functions that students find useful. These efforts can include developing more intuitive interfaces, improving transaction processing speeds, and providing relevant and easily accessible information. By meeting user needs and improving usability perceptions, institutions will not only improve system performance, but will also significantly increase student satisfaction with the services they receive.

CONCLUSION

Based on the results of the research conducted, it can be concluded that there is a significant relationship between the variables analyzed, namely Perceived Usefulness (PU), Perceived Ease of Use (PEU), Virtual Account Performance (PVA), and Student Satisfaction (KM). Specifically, PU and PEU have a positive effect on PVA, which further contributes to the increase in KM. The coefficients obtained show that students' perception of the usability and ease of use of virtual accounts has implications for system performance, which in turn increases their satisfaction. In

addition, statistical analysis showed that all of these influences were significant, with p-values being below the threshold of 0.05. This allows for the rejection of the null hypothesis and supports that the increase in PU and PEU not only has a direct impact, but also through optimal virtual account performance.

Based on the conclusions above, several suggestions can be proposed for educational institutions that use virtual account systems to support the teaching and learning process. Improved System Usability: Institutions need to focus on developing and improving features that students find useful. This can be done by conducting surveys to identify the features expected by users. Ease of Use Improvements: To improve PEU, the user interface design should be made more intuitive and easy to navigate. Clear training or tutorials on how to use the system can also be provided to reduce student uncertainty. System Performance Monitoring and Evaluation: Conducting periodic evaluations of virtual account performance can help identify areas for improvement. The use of clear performance indicators will allow institutions to measure student satisfaction and system effectiveness more precisely. User Feedback: Institutions should actively collect feedback from students about their experience using virtual accounts. This feedback can be used to make continuous improvements to the system. Advanced Studies: It is hoped that further research can explore other factors that may influence the relationship between PU, PEU, PVA, and KM, as well as conduct research with broader methodologies and different population variations.

REFERENCE

- Ahmad, M. I. S., Mustari, & Hasan, M. (2020). *Pengantar Manajemen* (Pertama). CV. Media Sains Indoensia.
- Bayu Pramutoko. (2020). *Manajemen Pemasaran : Manajemen Pemasaran Modern*. In Management Pemasaran (Vol. 9, Issue 2).
- Damayanti, V. (2019). *The Effect of Perceived Usefulness and Perceived Ease of Use on Purchase Intention Through Brand Image As an Intervening Variable in Yogyakarta Ust Shopee Users*. Jurnal Ilmiah Ekonomi Dan Bisnis, 16(2), 99–109. <https://doi.org/10.31849/jieb.v16i2.2317>
- Davis, G. B. (2016). *Kerangka Dasar: Sistem Informasi Manajemen, Bagian I Pengantar. Seri Manajemen No. 90-A* (12th ed.). PT. Pustaka Binawan Pressindo.
- DeLone, W. ., & McLean, E. . (2003). *The Delone And Mclean Model Of Information Systems Success: A Ten-Year Update*. Journal of Management Information Systems, 19(4), 9–30. <https://doi.org/10.1080/07421222.2003.11045748>
- Hadita, A., & Wufron, W. (2022). Building attitudes in financial management behavior of Garut University Students through financial management-based training. Journal of Nonformal Education, 8(2), 237-248. <https://journal.unnes.ac.id/nju/jone/article/view/37426>
- Hariyanto, S. (2016). *Slamet Hariyanto, Sistem Informasi Manajemen*. Sistem Informasi Manajemen, 9(1), 80–85. <https://jurnal-unita.org/index.php/publiciana/article/viewFile/75/69>

- Hidayat, R., & Wijaya, C. (2017). *Ayat-Ayat Alquran Tentang Manajemen Pendidikan Islam*. Lembaga Peduli Pengembangan Pendidikan Indonesia.
- Irfansyah, S. R., & Raharjo, Y. M. (2021). *Pengaruh Perceived Usefulness terhadap Mobile Users' Satisfaction dan Loyalty pada Aplikasi Go-Jek Oleh*: <https://osf.io/preprints/zpqmd/>
- Jogiyanto. (2015). *Metodologi Penelitian Bisnis Salah Kaprah dan Pengalaman-Pengalaman* (6th ed.). BPPFE.
- Kotler, P., & Keller, K. L. (2016a). *Manajemen Pemasaran* (13th ed.). Erlangga.
- Kotler, P., & Keller, K. L. (2016b). *Marketing Management (Global Edition)* (15th ed.). United State of Americam: Pearson.
- Kotler, P., & Keller, K. L. (2018). *Manajemen Pemasaran* (13th ed.).
- Kumala, D. C., Pranata, J. W., & Thio, S. (2020). *Pengaruh Perceived Usefulness, Perceived Ease of Use, Trust, Dan Security Terhadap Minat Penggunaan Gopay Pada Generasi X Di Surabaya*. Jurnal Manajemen Perhotelan, 6(1), 19-29.
- Lovelock, C., Wirtz, J., & Mussry, J. (2011). *Servive Marketing*. United State of Americam: Pearson.
- Luthans, F. (2016). *Perilaku Organisasi* (10th ed.). PT. Andi.
- Purnama, C. (2016). *Sistem Informasi Manajemen* (C. Anam (ed.)). Insan Global.
- Putri, C. A. V. E., Utomo, W. S., & Murwani, J. (2018). *Pengaruh Perceived Ease of Use dan Perceived Uesfulness Terhadap Kepuasan Pengguna Transaksi GO-Pay (Studi kasus pengguna aplikasi Gojek transaksi Go-Pay di Kota Madiun)*. 6(2).
- Rahman, R. R., & Sebastian, N. (2020). *Pengaruh Perceived Ease of Use dan Perceived Usefulness Dan Trust Terhadap Zalora's Application User Satifaction*. 3.
- Rahmatsyah, D. (2011). *Analisis Faktor-Faktor Yang Mempengaruhi Minat Penggunaan Produk Baru (studi kasus: E-money kartu Flazz BCA)*. Universitas Indonesia.
- Sakinah Ramadhanti, V. (2021). *Pengaruh Perceived Usefulness Dan Perceived Ease of Use Terhadap Kepuasan Pengguna E-Health*. Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal, 11(January), 0–10.
- Setyawati, R. E. (2020). *Pengaruh Perceived Usefullness, Perceived Ease of Use Terhadap Behavioral Intention To Use dengan Atittude Towards Using sebagai Variabel Intervening (Studi Kasus Pada Gopay Dikota Yogyakarta)*. Jurnal Ekobis Dewantara, 3(1), 39-51.
- Setyo, D., & Rahmawati, D. . (2015). *Pengaruh kualitas informasi dan kualitas sistem informasi terhadap kepuasan serta kinerja pengguna sistem informasi*. Jurnal Bisnis Dan Ekonomi, 6(1), 47–59. <https://doi.org/10.1017/CBO09781107415324.004>
- Simanungkalit, C. A. (2020). *Pengaruh Perceived Ease Of Use Dan Perceived Usefulness Terhadap Kepuasan Penggunaan Transaksi OVO Pada Pengguna Aplikasi Grab (Studi Pada Pengunjung Sun Plaza Medan)*.

- Sugihartono, & dkk. (2016). *Psikologi Pendidikan*. UNY Pers.
- Sugiyono. (2014). *Metode Penelitian Manajemen : Pendekatan Kuantitatif, Kualitatif, Kombinasi, Penelitian Tindakan, Penelitian Evaluasi* (1st ed.). Alfabeta.
- Sugiyono. (2017a). *Metode Penelitian Bisnis*. Alfabeta.
- Sugiyono. (2017b). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Tyas, E. I., & Darma, E. S. (2017). *Pengaruh Perceived Usefulness, Perceived Ease of Use, Perceived Enjoyment, dan Actual Usage Terhadap Penerimaan Teknologi Informasi: Studi Empiris Pada Karyawan Bagian Akuntansi dan Keuangan Baitul Maal Wa Tamwil Wilayah Daerah Istimewa Yogyakarta*. *Reviu Akuntansi dan Bisnis Indonesia*, 1(1), 25-35.
- Venkatesh, V., & David. (2016). *Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model*. *Information Systems Research*, 11(4), 342–365.
- Wanardi, & Triyono, A. (2019). *Manajemen pemasaran*. Depublish.