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Analysis of Marketing Strategy Utilizing Technology Acceptance Model (TAM) in Indonesian Banking E CRM Services

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Abstract

The objective of this research is to examine the influence of perceived usefulness and perceived ease of use on user attitude and intention to use, which subsequently impacts the usage behavior of banking E-CRM services in Indonesia. The main focus of this study is the banking strategies in Indonesia that utilize information technology in their services to provide benefits and facilitate their customers. Data processing and analysis methods employed in this research include descriptive and quantitative analysis. The population for this study is not precisely known in terms of numbers. The sampling technique used is purposive sampling, with the minimum sample size determined using the 10-times rule. The analytical technique utilized in this research is Partial Least Square-Structural Equation Modeling (PLS-SEM), employing the SmartPLS application. Data collection for this research is conducted through questionnaires. The analysis results indicate that perceived usefulness and perceived ease of use influence usage behavior, mediated by user attitude and intention to use banking E-CRM services in Indonesia.

Keywords: *Perceived Usefulness, Perceived Ease of Use, User Attitude, Intention to Use, Usage Behavior*

Introduction

In the context of a highly dynamic and competitive market, companies continually strive to acquire new customers and retain existing ones. Customer Relationship Management (CRM) is employed to build long-term relationships with customers through both traditional and digital channels (Dewnarain et al., 2021; Ngo and Vu, 2021). When Customer Relationship Management (CRM) is conducted through digital/electronic methods, it is referred to as E-CRM. Electronic Customer Relationship Management (E-CRM) enables more personalized interactions (Al Bashayreh et al., 2022). E-CRM in this study pertains to banking E-CRM services. E-CRM offers web-based information systems that assist customers in interacting with the bank, providing a comprehensive web experience (Adlin et al., 2019). E-CRM tools make transactions more efficient, making it easy for customers to communicate with the bank and resolve their issues (Rashwan et al., 2019). Banks offer various E-CRM tools such as internet banking, Automated Teller Machines (ATMs), credit/debit cards, smart cards, mobile banking, telebanking, email services, electronic fund transfers, etc., all aimed at helping customers interact and communicate with the bank anytime, anywhere (Mokha and Kumar, 2021). E-CRM encourages customer

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self-sufficiency in processing transactions online. Below is the data on digital banking transaction values in Indonesia from August 2018 to August 2023:

Figure 1: Value of Digital Banking Transactions
Source: databoks (2024)

The transaction value data indicates that banking E-CRM services such as internet banking transactions, SMS/mobile banking transactions, and phone banking transactions have seen an increase from August 2018 to August 2023. The data demonstrates the significant need for E-CRM services in the form of internet banking transactions, SMS/mobile banking transactions, and phone banking transactions among the public. The accumulation of these three services resulted in a transaction value of 5,098.6 trillion Indonesian rupiah. The largest transaction value is attributed to internet banking transactions, totaling 3,654.6 trillion Indonesian rupiah, followed by SMS/mobile banking transactions at 1,443.8 trillion Indonesian rupiah, and finally, phone banking transactions at 143.7 billion Indonesian rupiah.

E-CRM services drive the use of self-service technology involving mobile phones, laptops, or self-service kiosks facilitated by the internet, enabling customers to transact online without direct involvement from company employees providing the services (Gummerus et al., 2019). Several service sectors such as retail or banking can utilize self-service technology, primarily to reduce costs and gain a competitive advantage in the market. The use of self-service technology also helps reduce errors that lead to customer dissatisfaction (Ghosh, 2021).

From the customer's perspective, the use of self-service technology provides convenience in terms of place and time. In other words, bank customers do not need to visit the bank and waste their time standing in queues to perform transactions, as everything is available with a few clicks on a virtual/physical keyboard (Fitzsimmons et al., 2018) using any device, anywhere. The future service landscape anticipates that low-wage service jobs, unskilled workers, and those not adding value to the company will be eroded due to the prevalence of self-service technology (Fitzsimmons et al., 2018). Furthermore, the rapid growth of self-service technology in many transactions is also attributed to the continuous innovation in technology (Gummerus et al., 2019). Overall, both companies and customers use self-service

technology to achieve higher speed, better efficiency, lower costs, maintain service consistency, convenience, and improved processes (Wu and Wu, 2019).

The emergence of self-service technology in the late 20th century indicates that most advanced countries have observed significant growth in the service sector (Heineke & Davis, 2007). Companies that initially operated manually realized that to remain competitive, they needed to involve customers in service provision (Ghosh, 2021). Customers have control over the service delivery process, have the freedom (without waiting, without crowds, without interaction with sales personnel) to transact anytime and anywhere, and customers feel pleased when experiencing this (Ghosh, 2021). However, early websites developed were fraught with several issues, such as incomplete transactions, delayed deliveries, inaccessible information, and so forth (Ghosh, 2021). To ensure smooth transaction processes on the web, some companies investigate the possibility of checking the quality of their websites, focusing on the development and examination of various internet-based scales to measure website service quality (Ding et al., 2011).

Observing the rapid growth of business-to-consumer services in service transactions, Meuter et al. (2000) define self-service technology as technology that allows customers to obtain services without direct involvement from company service personnel. Self-service technology in this study pertains to banking E-CRM services, where customers can operate the technology remotely (Gummerus et al., 2019). This service is often regarded as an "anywhere, anytime" (24/7) service facilitated by the internet (Meuter et al., 2000). Banking E-CRM services can be downloaded via smartphones, thus promoting flexibility and efficiency for customers in conducting transactions. Below is the data on the number of downloads for financial applications:

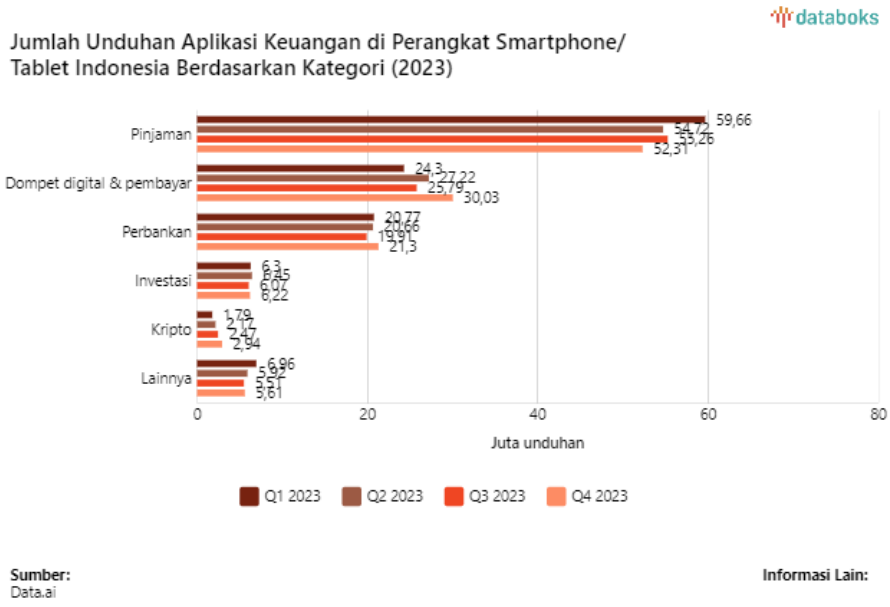

Figure 2: The Number of Downloads of Financial Applications
Source: databoks (2024)

The data indicates that the banking application (mobile banking) had a total of 20.77 million downloads in Quarter I, 20.66 million downloads in Quarter II, 19.91 million downloads in Quarter III, and 21.3 million downloads in Quarter IV. This data

demonstrates a 6.98% increase from Quarter III to Quarter IV in 2023. In its development, most research on technology adoption in business-to-customer services is based on several main theoretical models, namely: Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Expectation Confirmation Theory (ECT), and Customer Relationship Management (CRM) model (Ghosh, 2021).

This study is based on the theoretical foundation of the Technology Acceptance Model (TAM) conceptualized by Davis (1986), where the TAM theory is adapted from the Theory of Reasoned Action (TRA) specifically intended to understand individual acceptance of information systems (Davis et al., 1989).

The Technology Acceptance Model (TAM) proposes that perceived usefulness and perceived ease of use drive intention to use, which in turn affects the actual usage of a system. The TAM theory essentially provides a perspective on information systems that explains adoption behavior. In addition to the TAM model, there is the CRM model theory which is synonymous with service profitability (Heskett et al., 2008). As the internet dominates the global market and remains prevalent today, more companies are shifting to E-CRM models focused on reducing internal functional inadequacies of companies to enhance the perceived quality and satisfaction of customers (Ghosh, 2021).

Dyche (2001) defines E-CRM as a combination of hardware, software, applications, and management commitment. E-CRM encompasses all forms of customer relationships that can be managed over the internet through web browsers or various electronic touchpoints (Adlin et al., 2019). Abdulfattah (2012) developed E-CRM constructs related to products/services, transaction security, alternative payment methods, issue resolution, online feedback, and common inquiries as six main constructs in the banking industry.

According to Adlin et al. (2019), E-CRM offers a web-based information system that assists customers in interacting with the bank and provides a comprehensive web experience to customers. E-CRM tools make transactions more efficient, making it easy for customers to communicate with the bank and resolve their issues (Rashwan et al., 2019). Banks offer various E-CRM tools such as internet banking, automated teller machines (ATMs), credit/debit cards, smart cards, mobile banking, telebanking, email services, electronic fund transfers, etc., all aimed at assisting customers in interacting and communicating with the bank anytime and anywhere (Mokha & Kumar, 2021).

In Indonesia, E-CRM in banking covers various aspects, including internet banking services, mobile banking applications, ATMs (automatic teller machines), online customer services, as well as data usage and analysis. Moreover, E-CRM can also be applied in online account opening through the use of web-based portals and applications, interactive communication between customer support teams and prospective customers, online identity verification, data analysis to understand the behavior, preferences, and needs of prospective customers, and process automation where these features can manage document verification, assess risks, and complete the account opening process more efficiently. With E-CRM in place, prospective customers and existing customers will find it easier and more efficient to communicate with the bank, where this can be interpreted as technology enhancing the efficiency of prospective customers and customers in performing any task (Yoon & Lim, 2020). E-CRM enables prospective customers and customers to efficiently conduct any transactions in banking (Ashraf et al., 2016; Raza et al., 2017).

When prospective customers and customers feel that using technology can save their time and is highly efficient, it fosters a positive attitude towards using the same technology in the future (Taherdoost, 2018). This opinion is reinforced by the research findings of Mokha and Kumar (2021), who found that E-CRM influences the perceived usefulness by 44.9% (probability value of 0.000 < 0.05).

Besides influencing the perceived usefulness, E-CRM can also affect the perceived ease of use. Mokha and Kumar (2021) explain that the perceived ease of use in the context of E-CRM services is the extent to which the E-CRM services used by prospective customers and customers can minimize their mental and physical efforts. With the perceived ease of use possessed by prospective customers and customers, they will find it easier to use E-CRM (Diop et al., 2019; Liao et al., 2018; Taherdoost, 2018). This opinion is supported by the research findings of Mokha and Kumar (2021), who found that E-CRM influences the perceived ease of use by 74.4% (probability value of 0.000 < 0.05). Below are the data of super app users from January to March 2023, among others:

Figure 3: Banking Super App Users
Source: Katadata Insight Center (KIC) (2023)

The data indicates that BCA Mobile ranks first, followed by BRIMo and Mandiri Livin. This data proves that banking E-CRM services influence the perception of usefulness and ease of use among banking customers. Furthermore, the perception of usefulness will also affect the attitude and intention to use banking E-CRM services. Perceived usefulness is the extent to which an individual believes that using a particular system will enhance their performance (Davis, 1989), indicating that customers feel that technology has improved their efficiency in performing any task (Yoon & Lim, 2020). By using E-CRM systems, customers can efficiently carry out any banking transactions (Ashraf et al., 2016; Raza et al., 2017).

When customers feel that using technology can save them time and is highly efficient, it creates a positive attitude toward using the same technology in the future (Taherdoost, 2018). Customers who perceive benefits from E-CRM will therefore be inclined to use it, consistent with the views of Bagozzi (1981) and Davis (1989) that attitudes toward technology use are positive or negative feelings about technology use, where positive feelings from potential and current customers toward the use of

E-CRM services offered by the bank will influence their attitudes to use E-CRM (Mokha & Kumar, 2021). This view is supported by the research findings of Mokha and Kumar (2021), who found that perceived usefulness influences the attitude toward E-CRM usage by 32.9% (probability value of 0.035 < 0.05).

Moreover, perceived usefulness is one of the main factors influencing the intention to use a technology, where when customers have beliefs about the usefulness of using technology before using it, they will be able to use the technology (Lah et al., 2020). This view is reinforced by the research findings of Mokha and Kumar (2021), who found that perceived usefulness influences the intention to use E-CRM by 47.9% (probability value of 0.008 < 0.05).

The research findings of Förster (2024) revealed that perceived usefulness influences intention to use by 69.1% (probability value of 0.000 < 0.05). Furthermore, the research findings of Altes et al. (2024) found that perceived usefulness influences the intention to use digital data storage services by 48.2% (probability value of 0.005 < 0.05). Additionally, perceived ease of use can influence the perceived usefulness of an application that is easy to use by an individual who then realizes the benefits of the application (Mokha & Kumar, 2021; Venkatesh & Davis, 2000).

This view is supported by the research findings of Mokha and Kumar (2021), who found that perceived ease of use influences perceived usefulness by 50.3% (probability value of 0.000 < 0.05). Furthermore, the research findings of Förster (2024) found that perceived ease of use influences perceived usefulness by 17.2% (probability value of 0.001 < 0.05). Furthermore, the research findings of Altes et al. (2024) found that perceived ease of use influences perceived usefulness by 73.3% (probability value of 0.025 < 0.05).

The perceived ease of use possessed by customers makes them feel more comfortable using a particular technology, which changes customers' attitudes toward using that technology (Diop et al., 2019; Liao et al., 2018; Taherdoost, 2018). This view is supported by the research findings of Mokha and Kumar (2021), who found that perceived ease of use influences the attitude toward E-CRM usage by 53.1% (probability value of 0.001 < 0.05).

The perceived ease of use felt by prospective customers and existing customers will drive their intention to use E-CRM. The intention of prospective customers and customers is interpreted as their willingness to try to perform certain actions (Robinson, 2019). This view is reinforced by the research findings of Förster (2024), who found that perceived ease of use influences intention to use by 15.3% (probability value of 0.015 < 0.05). This proves that E-CRM services are capable of influencing the perceived usefulness and ease of use, which then affect the attitude and intention to use. Furthermore, attitude and intention to use will ultimately drive usage behavior, as further elucidated below. Attitude in this research context refers to the attitude toward technology usage. In the context of E-CRM, attitude is defined as customers' positive and negative feelings toward using the E-CRM services offered by the bank. When customers feel that they can smoothly conduct their transactions with minimal effort, it enhances their efficiency in performing these transactions, resulting in satisfaction among them, thereby influencing a positive intention to use the technology again in the future.

This view is reinforced by the research findings of Mokha and Kumar (2021), who found that the attitude towards E-CRM usage influences the intention to use E-CRM by 49.6% (probability value of 0.006 < 0.05).

Then, intention represents the extent to which someone is willing to try and invest in a particular behavior or the amount of effort they are willing to make to perform a certain action. In the context of E-CRM, intention is defined as the intention to use E-CRM services in the future. Essentially, this intention is customers' intention to communicate online with the bank and maintain a good relationship with the bank. The intention of prospective customers and existing customers to use E-CRM will prompt them to actually use E-CRM, where individuals who have formed a positive perception of the benefits and ease of use of a system actively use the technology in real situations, beginning with the intention to use it (Altes et al., 2024; Förster, 2024).

This view is reinforced by the research findings of Altes et al. (2024), who found that the intention to use digital data storage services influences actual usage of digital data storage services by 71.5% (probability value of 0.03 < 0.05). However, there is a research gap from the findings of Förster (2024), who found that intention to use influences usage behavior by 25.8%, but it has a probability value of 0.729, which is greater than 0.05, indicating that the influence may not be significant. Therefore, this study aims to analyze the effects of E-CRM usage, perceived usefulness, ease of use, and usage attitude on E-CRM usage behavior, mediated by intention to use E-CRM.

This study contributes to the development of the Technology Acceptance Model (TAM) theory used to predict usage attitudes, intention to use, and actual usage behavior by modifying the research models of Mokha and Kumar (2021), Förster (2024), and Altes et al. (2024). Additionally, this research contributes to bridging the research gap from Förster (2024), who found that intention to use influences usage behavior by 25.8%, but has a probability value of 0.729, indicating that the influence may not be significant. Finally, this research is expected to provide empirical insights into E-CRM usage behavior in the banking sector in Indonesia.

Literature Review

1. Perceived Usefulness

Perceived usefulness is the extent to which an individual believes that using a particular system will enhance their performance (Davis, 1989), indicating that customers feel that technology has improved their efficiency in performing any task (Yoon & Lim, 2020). Perceived usefulness is the level of belief an individual holds that using a particular service will enhance their social status or contribute to the image they are trying to communicate to the outside world, consistent with their lifestyle and needs (Förster & Schulz, 2022). By using the E-CRM system, customers can efficiently conduct any banking transactions (Ashraf et al., 2016; Raza et al., 2017). Several indicators to measure perceived usefulness are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021).

2. Perceived Ease of Use

Davis (1989) defines perceived ease of use as the extent to which an individual believes that using a particular system will be free of effort, meaning that when someone uses a system of a particular technology, they will not exert effort both mentally and physically. Perceived ease of use means the extent to which an individual believes that using a system will be effortless (Venkatesh et al., 2003). Perceived ease of use is the level of belief an individual holds that using a service will be effortless, alongside considering the usefulness-to-effort ratio (Förster & Schulz, 2022). Mokha and Kumar (2021) explain that perceived ease of use, in the context of

E-CRM services, is the extent to which the E-CRM services used by customers can minimize their effort both mentally and physically. Several indicators to measure perceived ease of use are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021).

3. Usage Attitude

Attitude in this research context refers to the attitude towards technology usage. Attitude towards technology usage is defined as an individual's positive and negative feelings towards using any technology (Bagozzi, 1981; Davis, 1989). Usage attitude represents an individual's positive/negative feelings regarding engaging in specific behaviors (Venkatesh et al., 2003). In the context of E-CRM, attitude is defined as customers' positive and negative feelings towards using the E-CRM services offered by the bank (Mokha & Kumar, 2021). Several indicators to measure usage attitude are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021).

4. Intention to Use

According to Davis (1989), intention is described as the intention behind using the technology. Intention represents the level to which an individual is willing to try and invest in a particular behavior or the amount of effort they are willing to make to perform a certain action (Robinson, 2019). In the context of E-CRM, intention is defined as the intention to use E-CRM services in the future. Essentially, this intention is customers' intention to communicate online with the bank and maintain a good relationship with the bank (Mokha & Kumar, 2021). Several indicators to measure intention to use are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021).

5. Usage Behavior

According to Davis (1989), usage behavior refers to actual usage behavior or adoption of a technology by individuals. This theory refers to the actions of individuals using a system or technology introduced into their environment. This usage behavior is the result of an individual's broader technology acceptance, where they decide to actively adopt and use the technology in their routines. In the context of the Technology Acceptance Model (TAM), usage behavior is considered as the final step in the technology acceptance process, where individuals have formed a positive perception of the benefits and ease of use of a system, thus actively using the technology in real situations (Altes et al., 2024; Förster, 2024). Usage behavior is an evaluation of all constructs leading to the implementation or non-implementation of behavior (Förster, 2024). Several indicators to measure usage behavior are adopted from Altes et al. (2024).

Hypothesis

1. Influence of Perceived Usefulness on Usage Attitude

Perceived usefulness is the extent to which someone believes that using a specific system will enhance their performance (Davis, 1989), indicating that customers feel that technology has increased their efficiency in performing any task (Yoon & Lim, 2020). By using an E-CRM system, customers can efficiently conduct any banking transactions (Ashraf et al., 2016; Raza et al., 2017). When customers feel that using technology can save them time and is very efficient, it generates a positive attitude towards using the same technology in the future (Taherdoost, 2018).

Customers who perceive benefits from E-CRM will then drive their attitude towards using E-CRM, consistent with the views of Bagozzi (1981) and Davis (1989) stating that attitudes towards technology usage represent positive and negative feelings towards technology usage, where the positive feelings of prospective and existing customers towards the use of E-CRM services offered by banks will influence their attitudes to use E-CRM (Mokha & Kumar, 2021). This view is reinforced by the research findings of Mokha and Kumar (2021) that perceived usefulness has a 32.9% influence on the usage attitude towards E-CRM (probability value of 0.035 < 0.05).

2. Influence of Perceived Usefulness on Intention to Use

Perceived usefulness is the extent to which someone believes that using a specific system will enhance their performance (Davis, 1989), indicating that customers feel that technology has increased their efficiency in performing any task (Yoon & Lim, 2020). By using an E-CRM system, customers can efficiently conduct any banking transactions (Ashraf et al., 2016; Raza et al., 2017). Perceived usefulness is one of the key factors influencing the intention to use a technology, where when customers have confidence in the usefulness of using technology before using it, they will be able to use the technology (Lah et al., 2020).

This view is reinforced by the research findings of Mokha and Kumar (2021) that perceived usefulness has a 47.9% influence on the intention to use E-CRM (probability value of 0.008 < 0.05). The research findings of Förster (2024) also found that perceived usefulness has a 69.1% influence on intention to use (probability value of 0.000 < 0.05). Furthermore, the research findings of Altes et al. (2024) found that perceived usefulness has a 48.2% influence on the intention to use digital data storage services (probability value of 0.005 < 0.05).

3. Influence of Perceived Ease of Use on Perceived Usefulness

Mokha and Kumar (2021) explain that perceived ease of use in the context of E-CRM services is the extent to which E-CRM services used by customers can minimize customer effort both mentally and physically. Where perceived ease of use can affect perceived usefulness of an application that is easy to use by someone, which then they realize the benefits of that application (Mokha & Kumar, 2021; Venkatesh & Davis, 2000). This view is reinforced by the research findings of Mokha and Kumar (2021) that perceived ease of use has a 50.3% influence on perceived usefulness (probability value of 0.000 < 0.05). Subsequently, the research findings of Förster (2024) found that perceived ease of use has a 17.2% influence on perceived usefulness (probability value of 0.001 < 0.05). And finally, the research findings of Altes et al. (2024) found that perceived ease of use has a 73.3% influence on perceived usefulness (probability value of 0.025 < 0.05).

4. Influence of Perceived Ease of Use on Usage Attitude

Mokha and Kumar (2021) explain that perceived ease of use in the context of E-CRM services is the extent to which E-CRM services used by customers can minimize customer effort both mentally and physically. With the perceived ease of use possessed by customers, customers will find it easier to use a particular technology, changing their attitude towards the use of that technology (Diop et al., 2019; Liao et al., 2018; Taherdoost, 2018). This view is reinforced by the research findings of Mokha and Kumar (2021) that perceived ease of use has a 53.1% influence on usage attitude towards E-CRM (probability value of 0.001 < 0.05).

5. Influence of Perceived Ease of Use on Intention to Use

Mokha and Kumar (2021) explain that perceived ease of use in the context of E-CRM services is the extent to which E-CRM services used by customers can minimize customer effort both mentally and physically. Perceived ease of use perceived by prospective and existing customers will drive their intention to use E-CRM. This intention is interpreted as their willingness to try to take certain actions (Robinson, 2019). In the context of E-CRM, intention is defined as the intention to use E-CRM services in the future to communicate online with the bank and manage a good relationship with the bank (Mokha & Kumar, 2021). This view is reinforced by the research findings of Förster (2024) that perceived ease of use has a 15.3% influence on intention to use (probability value of 0.015 < 0.05).

6. Influence of Usage Attitude on Intention to Use

Attitude in the context of this research is the attitude towards technology usage. In the context of E-CRM, attitude is defined as the positive and negative feelings of customers towards the use of E-CRM services offered by the bank (Mokha & Kumar, 2021). When customers feel that they can conduct their transactions smoothly and with minimal effort, it improves their efficiency in conducting those transactions, which creates satisfaction among them, thus influencing a positive intention to use the technology again in the future (Diop et al., 2019; Liao et al., 2018; Rafique et al., 2019). This view is reinforced by the research findings of Mokha and Kumar (2021) that usage attitude towards E-CRM has a 49.6% influence on intention to use E-CRM (probability value of 0.006 < 0.05).

7. Influence of Intention to Use on Usage Behavior

Intention represents the level to which someone is willing to try and invest in a specific behavior or the amount of effort they are willing to make to take a certain action (Robinson, 2019). In the context of E-CRM, intention is defined as the intention to use E-CRM services in the future. Essentially, this intention is customers' willingness to communicate online with the bank and manage a good relationship with the bank (Mokha & Kumar, 2021).

The intention of prospective and existing customers to use E-CRM will prompt them to use E-CRM in actuality, where individuals who have formed a positive perception of the benefits and ease of use of a system will actively use the technology in real situations, starting from the intention to use (Altes et al., 2024; Förster, 2024). This view is supported by the research findings of Altes et al. (2024) that intention to use digital data storage services has a 71.5% influence on actual usage (probability value of 0.03 < 0.05). However, there is a research gap from the research findings of Förster (2024) that intention to use has a 25.8% influence on usage behavior but has a probability value of 0.729 which is greater than 0.05.

Thus, the hypothesis can be formulated as follows:

H1. Perceived usefulness has a positive effect on usage attitude towards E-CRM in the banking sector in Indonesia.

H2. Perceived usefulness has a positive effect on intention to use E-CRM in the banking sector in Indonesia.

H3. Perceived ease of use has a positive effect on perceived usefulness of E-CRM in the banking sector in Indonesia.

H4. Perceived ease of use has a positive effect on usage attitude towards E-CRM in the banking sector in Indonesia.

H5. Perceived ease of use has a positive effect on intention to use E-CRM in the banking sector in Indonesia.

H6. Usage attitude has a positive effect on intention to use E-CRM in the banking sector in Indonesia.

H7. Intention to use has a positive effect on usage behavior of E-CRM in the banking sector in Indonesia.

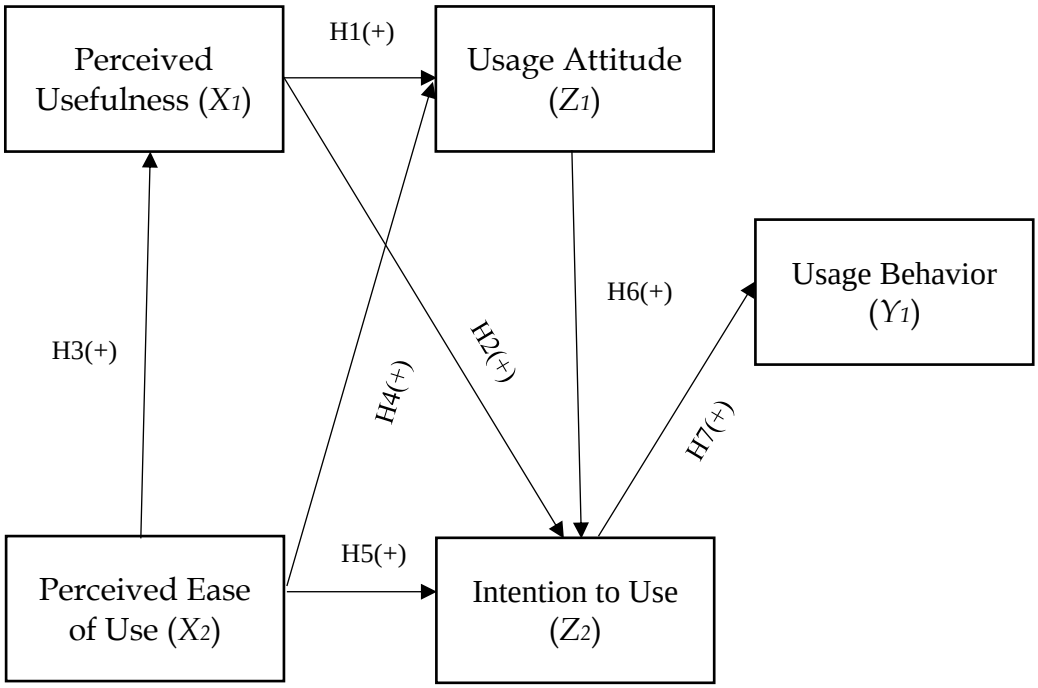

Figure 4. Research Model
Source: Adapted from the conceptual framework of research by Mokha and Kumar (2021), Altes et al. (2024), and Förster (2024)

Methods

Sampling and Procedures

Population is the abstract idea of a large group of cases from which researchers draw a sample and is the result of generalizing the sample (Neuman, 2014). Meanwhile, a sample is a small group of cases selected by researchers from a large collection and generalized to the population (Neuman, 2014). The population in this study is all bank customers in Indonesia. The unit of analysis used is individuals referred to as customers. The sample in this study is a portion of bank customers who meet additional criteria and have used Indonesian banking E-CRM services. The sampling technique in this study is non-probability sampling. This is because non-probability sampling is appropriate when the elements of the population cannot be known (Cooper and Schindler, 2014). The chosen type of non-probability sampling in this study is purposive sampling. Purposive sampling is a sampling technique limited to individuals with specific characteristics who can provide information because they meet the criteria determined by the researcher (Sekaran and Bougie, 2016). The determination of the sample size used in this study follows the requirement of the

minimum sample size in Partial Least Square-Structural Equation Modeling (PLS-SEM). The minimum sample size is 10 times the number of items in the study (Hair et al., 2014b). Based on this explanation, the minimum sample size in this study is 210 respondents.

Measures

1. Perceived Usefulness

Indicators to measure perceived usefulness are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021), including:

a. Using E-CRM services for transactions will allow me to complete transactions faster

b. Using E-CRM services will improve my transaction performance

c. Using E-CRM services for transactions will increase my productivity

d. Using E-CRM services will enhance my transaction effectiveness

e. Using E-CRM services will make it easier for me to conduct transactions

f. E-CRM services are beneficial for my transactions

The perceived usefulness variable is measured using a 5-point Likert scale. The categories for each point used are SD (strongly disagree), D (disagree), N (neutral), A (agree), and SA (strongly agree).

2. Perceived Ease of Use

indicators to measure perceived ease of use are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021), including:

a. I find learning to operate E-CRM services relatively easy

b. E-CRM services can do what I want them to do

c. My interactions using E-CRM services are easy to understand and clear

d. E-CRM services are flexible to use in interactions

e. I find it relatively easy to become skilled in using E-CRM services

f. E-CRM services are easy to use

The perceived ease of use variable is measured using a 5-point Likert scale. The categories for each point used are SD (strongly disagree), D (disagree), N (neutral), A (agree), and SA (strongly agree).

3. Usage Attitude

Indicators to measure usage attitude are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021), including:

a. Using E-CRM services is a good and wise idea

b. I like the idea of using E-CRM services

c. Using E-CRM services is an enjoyable experience

The usage attitude variable is measured using a 5-point Likert scale. The categories for each point used are SD (strongly disagree), D (disagree), N (neutral), A (agree), and SA (strongly agree).

4. Intention to Use

Indicators to measure intention to use are adopted from Venkatesh et al. (2003) as presented in Mokha and Kumar (2021), including:

a. I intend to use E-CRM services in the next month

b. I predict that I will use E-CRM services in the next month

c. I plan to use E-CRM services in the next month

The intention to use variable is measured using a 5-point Likert scale. The categories for each point used are SD (strongly disagree), D (disagree), N (neutral), A (agree), and SA (strongly agree).

5. Usage Behavior

Indicators to measure usage behavior are adopted from Altes et al. (2024), including:

a. I always use E-CRM services for my daily transactions

b. I use internet banking and mobile banking more often than ATM cards

c. I synchronize personal data in E-CRM services

The usage behavior variable is measured using a 5-point Likert scale. The categories for each point used are SD (strongly disagree), D (disagree), N (neutral), A (agree), and SA (strongly agree).

Data Analysis

This research employs quantitative analysis. In quantitative research, researchers test hypotheses proposed at the outset, where the proposed concepts are in the form of variables, and the collected data consist of numerical values (Neuman, 2014). Quantitative analysis is conducted using Structural Equation Modeling (SEM). Structural Equation Modeling (SEM) is a family of statistical models used to explain relationships among multiple variables (Hair et al., 2014a).

Partial Least Square-Structural Equation Modeling (PLS-SEM) is a variance-based method for estimating structural equation models. This research utilizes PLS-SEM because it is employed in complex structural models with multiple constructs and indicators (Hair et al., 2014b). The analytical tool used is PLS-SEM 3.0. In the application of the PLS model, there are two stages involved.

The outer model stage, also known as measurement model evaluation, is used to test the instruments. The inner model stage, or structural model evaluation, is used to test the hypotheses proposed in the path analysis in this study. The measurement model evaluation stage can be conducted by testing the validity and reliability of each indicator on its latent variable. Subsequently, the structural model evaluation stage can be conducted by examining the coefficient of determination, predictive relevance, and Goodness of Fit (GoF) (Hair et al., 2014b).

The coefficient of determination represents the amount of variance explained by endogenous constructs in the structural model. The predictive relevance value is a systematic resampling technique that systematically removes and predicts each indicator data in the reflective measurement model on endogenous constructs (Hair et al., 2014b). Goodness of Fit (GoF) is used to validate the overall structural model. A coefficient of determination value of ≥ 0.25 indicates low, ≥ 0.50 indicates moderate, and ≥ 0.75 indicates high. For studies focusing on consumer behavior, a coefficient

of determination > 0.20 is considered high. The predictive relevance value used is > 0 (Hair et al., 2014b), and if the Goodness of Fit (GoF) value is ≥ 0.1, it means small, ≥ 0.25 means moderate, and ≥ 0.36 means high.

To test hypotheses, path coefficient (β) analysis and significance value (p-value) analysis are conducted. The path coefficient (β) represents the relationship between latent variables in a structural model (Hair et al., 2014b). If the path coefficient has a positive value, then the exogenous construct has a positive relationship with its endogenous construct, and vice versa. The significance value (p-value) is the probability of error used to assume that the path coefficient significantly differs from zero. Meanwhile, the t-value is the process of testing whether the path coefficient truly differs from zero in the population (Hair et al., 2014b). The p-value and t-value are used to determine whether hypotheses are accepted or rejected. A hypothesis is accepted when the p-value is < 0.05.

Furthermore, to test the influence of each variable, path analysis is employed. $H0$ is the hypothesis under investigation, stating that there is no difference between sample parameters and population statistics. On the other hand, Ha is the statement asserting that there is a difference between sample parameters and population statistics (Cooper and Schindler, 2014). If the path coefficient (β) value is positive and the p-value is less than 0.05, then $H0$ is rejected, and Ha is accepted. Conversely, $H0$ is accepted, and Ha is rejected if the path coefficient (β) value is negative and the p-value is greater than 0.05.

Result and Discussion

Result

1. Characteristics of respondents

The majority of bank customers are female, numbering 138 or 56.33%, while male customers number 107 or 43.67%. The majority of bank customers are aged between 26-33 years, numbering 132 or 53.88%, followed by those aged between 18-25 years, numbering 113 or 46.12%. The majority of bank customers have an average monthly expenditure ranging from Rp. 2,500.001 to Rp. 3,500.000 numbering 74 or 30.2%, followed by those with an average monthly expenditure ranging from Rp. 3,500.001 to Rp. 4,500.000 numbering 64 or 26.12%. The majority of bank customers have been using E-CRM services for more than 2 years up to 3 years, numbering 90 or 36.73%, with the majority of these customers obtaining information about E-CRM services from their friends, numbering 139 or 56.73%. The majority of bank customers reside in West Java, numbering 86 or 35.10%, with a Bachelor's Degree (S1) numbering 145 or 59.18% and have the status of entrepreneurs numbering 124 or 50.61%.

2. Validity and Reliability Test

As follows are the results of validity and reliability tests using outer loading values, AVE, Cronbach's Alpha, and Composite Reliability.

Table 1. Validity and Reliability Construct

Variable	Cronbach's Alpha	Composit Reliability	AVE	Indicator	Outer Loading
	0.872	0.904		PKemanP_1	0.793

Perceived Usefulness (*X1*)			0.610	PKemanP_2	0.815
				PKemanP_3	0.737
				PKemanP_4	0.735
				PKemanP_5	0.789
				PKemanP_6	0.791
Perceived Ease of Use (*X2*)	0.878	0.908	0.622	PKemudP_1	0.800
				PKemudP_2	0.814
				PKemudP_3	0.738
				PKemudP_4	0.776
				PKemudP_5	0.762
				PKemudP_6	0.820
Usage Attitude (*Z1*)				SP_1	0.797
				SP_2	0.784
				SP_3	0.834
Intention to Use (*Z2*)				NP_1	0.866
				NP_2	0.729
				NP_3	0.838
Usage Behavior (*Y*)				PP_1	0.846
				PP_2	0.803
				PP_3	0.793

Source: Primary Data Processed (2024)

Table 1 presents the outer loading values of each indicator on the research constructs, all of which are > 0.70. Therefore, all items in this study are considered valid. Furthermore, it was found that the AVE values are ≥ 0.50, indicating that the constructs explain more than half of the variance of their indicators or that the results of the convergent validity test are good. Additionally, the reliability testing results state that the cronbach's alpha and composite reliability values are > 0.70, indicating that the items used are deemed reliable.

Table 2. Fornell-Larcker Criterion

Variable	Intention to Use	Usage Behavior	Perceived Usefulness	Perceived Ease of Use	Usage Attitude
Intention to Use	**0.813**				
Usage Behavior	0.599	**0.815**			
Perceived Usefulness	0.636	0.637	**0.777**		
Perceived Ease of Use	0.535	0.426	0.649	**0.786**	
Usage Attitude	0.585	0.689	0.624	0.652	**0.805**

Source: Primary Data Processed (2024)

Table 2 presents the results of discriminant validity testing using the Fornell-Larcker criterion. The diagonal values in Table 2 represent the square root of the AVE for each construct. It is known that discriminant validity is considered good if the square root of the AVE for each construct is greater than the highest correlation with other constructs. Therefore, the results of the discriminant validity test are considered good.

3. R Square, Q Square, and Goodness of Fit Test

Table 3. R Square, Q Square, and Goodness of Fit Test

Testing	Test Results	Criteria
Coefficient of Determination (R^2) Perceived Usefulness ($R^2 1$) Usage Attitude ($R^2 2$) Intention to Use ($R^2 3$) Usage Behavior ($R^2 4$)	 0.900 0.911 0.901 0.788	 High
Predictive Relevance (Q^2) $Q^2 = 1 - ((1 - R^2 1)(1 - R^2 2)(1 - R^2 3)(1 - R^2 4))$ $Q^2 = 1 - ((1 - 0.900)(1 - 0.911)(1 - 0.901)(1 - 0.788))$ $Q^2 = 1 - ((0.1)(0.089)(0.099)(0.212))$ $Q^2 = 1 - 0.0001868$ $Q^2 = 0.99981$	0.99981	Having predictive relevance because it is > 0
Goodness of Fit (GoF) $GoF = \sqrt{\overline{AVE} x \overline{R^2}}$ $GoF = \sqrt{0.639\ x\ 0.875} = 0.7477$	0.7477	High

Source: Primary Data Processed (2024)

Structural model evaluation was conducted to determine whether the model used in this study was appropriate. Structural model evaluation was carried out using coefficient of determination values, predictive relevance, and Goodness of Fit (GoF) (Hair et al., 2014b). A coefficient of determination value of ≥ 0.25 means weak, ≥ 0.50 means moderate, and ≥ 0.75 means strong. Then, for the predictive relevance value used, it is > 0 (Hair et al., 2014b). The suitability of the model generated from Smart-PLS application indicates an acceptable fit. This can be seen from the coefficient of determination values ≥ 0.75. It is known based on table 4.18 that the coefficient of determination measurement results ≥ 0.75, namely the coefficient of determination on perceived usefulness variable is 0.900, attitude toward use is 0.911, intention to use is 0.901, and actual use behavior is 0.788. This indicates that the amount of variance explained in the structural model is high because it has values ≥ 0.75.

In addition, the results of predictive relevance testing show a value of 0.99981, which means that the observed values are stated to be good and have relevant predictive values because they are > 0. It can be said that the model used in this study can explain the information in the research data by 99.98%. Goodness of Fit (GoF) is used to measure the strength of the explanatory model. A GoF value of ≥ 0.1 means low, ≥ 0.25 means moderate, and ≥ 0.36 means high. It can be seen from the Goodness of Fit (GoF) testing results showing a value of 74.77%, which means the Goodness of Fit (GoF) value falls into the high category. This indicates that the explanatory model's strength is significant and acceptable.

4. Hypothesis Test

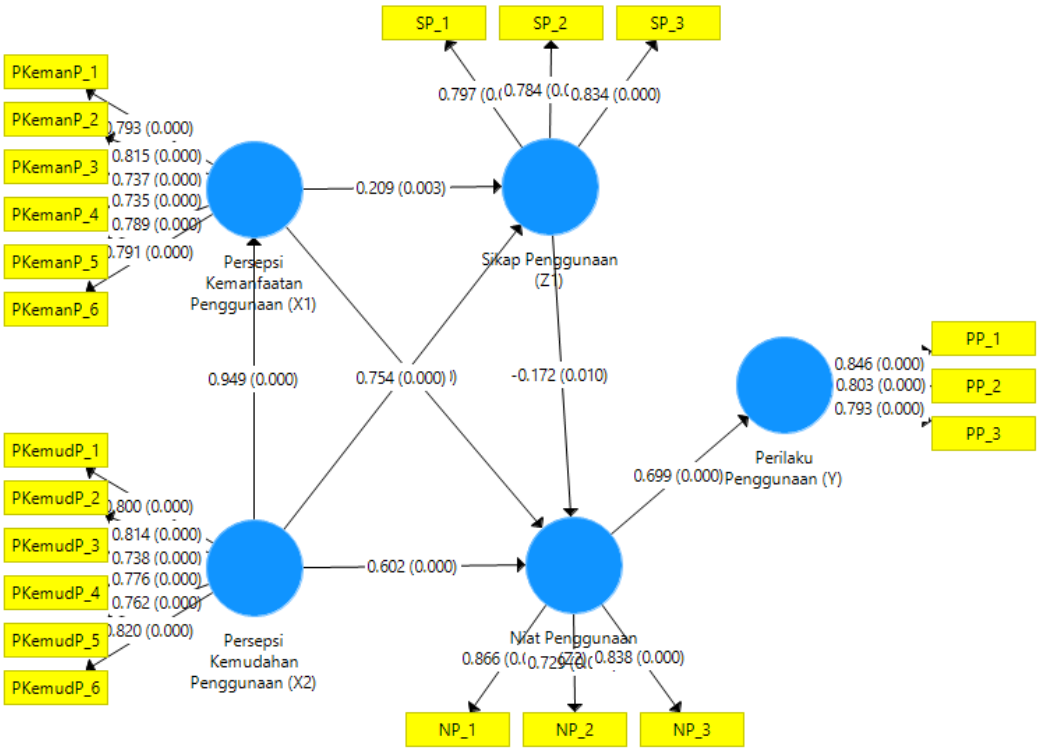

Figure 5. *Original Sample and P Value*
Source: Primary Data Processed (2024)

a. Hypothesis Testing 1

Hypothesis 1 states that perceived usefulness has a positive influence on usage attitude. The analysis results prove that perceived usefulness has a positive and significant effect on usage attitude, with a beta value of positive 20.9% and a p-value of 0.003 < 0.05. Therefore, Ha is accepted and H0 is rejected. It can be concluded that hypothesis 1 is accepted.

b. Hypothesis Testing 2

Hypothesis 2 states that perceived usefulness has a positive influence on usage intention. The analysis results prove that perceived usefulness has a positive and significant effect on usage intention, with a beta value of positive 52.4% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted and H0 is rejected. It can be concluded that hypothesis 2 is accepted.

c. Hypothesis Testing 3

Hypothesis 3 states that perceived ease of use has a positive influence on perceived usefulness. The analysis results prove that perceived ease of use has a positive and significant effect on perceived usefulness, with a beta value of positive 94.9% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted and H0 is rejected. It can be concluded that hypothesis 3 is accepted.

d. Hypothesis Testing 4

Hypothesis 4 states that perceived ease of use has a positive influence on usage attitude. The analysis results prove that perceived ease of use has a positive and significant effect on usage attitude, with a beta value of positive 75.4% and a p-value

of 0.000 < 0.05. Therefore, Ha is accepted and H0 is rejected. It can be concluded that hypothesis 4 is accepted.

e. Hypothesis Testing 5

Hypothesis 5 states that perceived ease of use has a positive influence on usage intention. The analysis results prove that perceived ease of use has a positive and significant effect on usage intention, with a beta value of positive 60.2% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted and H0 is rejected. It can be concluded that hypothesis 5 is accepted.

f. Hypothesis Testing 6

Hypothesis 6 states that usage attitude has a positive influence on usage intention. The analysis results prove that usage attitude has a negative and significant effect on usage intention, with a beta value of negative 17.2% and a p-value of 0.010 < 0.05. Therefore, H0 is accepted and Ha is rejected. It can be concluded that hypothesis 6 is rejected.

g. Hypothesis Testing 7

Hypothesis 7 states that usage intention has a positive influence on usage behavior. The analysis results prove that usage intention has a positive and significant effect on usage behavior, with a beta value of positive 69.9% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted and H0 is rejected. It can be concluded that hypothesis 7 is accepted.

h. Summary of Hypothesis Testing Results

Based on the hypothesis testing conducted, the greatest influence was found in hypothesis 3, where perceived ease of use positively and significantly influences perceived usefulness by 94.9%. Additionally, one hypothesis was rejected in hypothesis 6 because usage attitude actually has a negative and significant effect on usage intention by 17.2%.

Table 4. Summary of Hypothesis Testing Results

Direct Effect	Original Sample	T Statistics	P Values	Description
Intention to Use -> Usage Behavior	0.699	7.669	0.000	Supported
Perceived Usefulness -> Intention to Use	0.524	7.272	0.000	Supported
Perceived Usefulness -> Usage Attitude	0.209	2.959	0.003	Supported
Perceived Ease of Use -> Intention to Use	0.602	6.844	0.000	Supported
Perceived Ease of Use -> Perceived Usefulness	0.949	54.809	0.000	Supported
Perceived Ease of Use -> Usage Attitude	0.754	10.719	0.000	Supported

Usage Attitude -> Intention to Use	-0.172	2.591	0.010	Supported

Source: Primary Data Processed (2024)

Discussion

1. Influence of Perceived Usefulness on Usage Attitude of E-CRM in the banking sector in Indonesia

Based on the results of hypothesis testing 1, it is found that perceived usefulness has a positive and significant effect on usage attitude, with a beta value of positive 20.9% and a p-value of 0.003 < 0.05. Therefore, Ha is accepted, and H0 is rejected. It can be concluded that hypothesis 1 is accepted. This research supports the findings of Mokha and Kumar (2021) who found that perceived usefulness affects usage attitude of E-CRM by 32.9% (probability value of 0.035 < 0.05).

This research supports the theory that when customers feel that using technology can save them time and is very efficient, it creates a positive attitude towards using the same technology in the future (Taherdoost, 2018). Customers who perceive benefits from E-CRM will encourage their attitude to use E-CRM, in line with the opinions of Bagozzi (1981) and Davis (1989) stating that attitude towards technology use is a positive and negative feeling towards technology use, where positive feelings from customers towards the use of E-CRM services offered by banks will affect their attitude towards using E-CRM (Mokha and Kumar, 2021).

2. Influence of Perceived Usefulness on Usage Intention of E-CRM in the banking sector in Indonesia

Based on the results of hypothesis testing 2, it is found that perceived usefulness has a positive and significant effect on usage intention, with a beta value of positive 52.4% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted, and H0 is rejected. It can be concluded that hypothesis 2 is accepted. This research supports the findings of Mokha and Kumar (2021) who found that perceived usefulness affects usage intention of E-CRM by 47.9% (probability value of 0.008 < 0.05).

The results of Förster (2024) found that perceived usefulness affects usage intention by 69.1% (probability value of 0.000 < 0.05). Furthermore, the results of research by Altes et al. (2024) found that perceived usefulness affects usage intention of digital data storage services by 48.2% (probability value of 0.005 < 0.05). This research supports the theory that perceived usefulness is one of the main factors influencing usage intention to use a technology, where when customers have confidence in the usefulness of using technology before using it, then customers will be able to use the technology (Lah et al., 2020).

3. Influence of Perceived Ease of Use on Perceived Usefulness of E-CRM usage in the banking sector in Indonesia

Based on the results of hypothesis testing 3, it is found that perceived ease of use has a positive and significant effect on perceived usefulness, with a beta value of positive 94.9% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted, and H0 is rejected. It can be concluded that hypothesis 3 is accepted. This research supports the findings of Mokha and Kumar (2021) who found that perceived ease of use affects perceived usefulness of usage by 50.3% (probability value of 0.000 < 0.05). Then, the results of Förster (2024) found that perceived ease of use affects perceived usefulness of usage by 17.2% (probability value of 0.001 < 0.05).

And finally, the results of research by Altes et al. (2024) found that perceived ease of use affects perceived usefulness of usage by 73.3% (probability value of 0.025 < 0.05). This research supports the experts' opinion that perceived ease of use can influence perceived usefulness of usage from an application that is easy to use by someone who then realizes the benefits of the application (Mokha and Kumar, 2021; Venkatesh and Davis, 2000).

4. Influence of Perceived Ease of Use on Usage Attitude of E-CRM in the banking sector in Indonesia

Based on the results of hypothesis testing 4, it is found that perceived ease of use has a positive and significant effect on usage attitude, with a beta value of positive 75.4% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted, and H0 is rejected. It can be concluded that hypothesis 4 is accepted. This research supports the findings of Mokha and Kumar (2021) who found that perceived ease of use affects usage attitude of E-CRM by 53.1% (probability value of 0.001 < 0.05). This research supports the expert theory that with the perceived ease of use owned by customers, customers will feel easier to use a particular technology, changing customers' attitudes towards using the technology (Diop et al., 2019; Liao et al., 2018; Taherdoost, 2018).

5. Influence of Perceived Ease of Use on Usage Intention of E-CRM in the banking sector in Indonesia

Based on the results of hypothesis testing 5, it is found that perceived ease of use has a positive and significant effect on usage intention, with a beta value of positive 60.2% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted, and H0 is rejected. It can be concluded that hypothesis 5 is accepted. This research supports the findings of Förster (2024) who found that perceived ease of use affects usage intention by 15.3% (probability value of 0.015 < 0.05). This research supports the expert theory that the perceived ease of use felt by potential customers and customers will drive their intention to use E-CRM. The intention is interpreted as their willingness to try to take certain actions (Robinson, 2019).

6. Influence of Usage Attitude on Usage Intention of E-CRM in the banking sector in Indonesia

Based on the results of hypothesis testing 6, it is found that usage attitude has a negative and significant effect on usage intention, with a beta value of negative 17.2% and a p-value of 0.010 < 0.05. Therefore, H0 is accepted, and Ha is rejected. It can be concluded that hypothesis 6 is rejected. This research contradicts the findings of Mokha and Kumar (2021) who found that E-CRM usage attitude affects usage intention of E-CRM by 49.6% (probability value of 0.006 < 0.05). Mokha and Kumar (2021) explain that usage attitude is defined as customers' positive and negative feelings towards using E-CRM services offered by banks.

When customers feel that they can conduct their transactions smoothly and with minimum effort, it increases their efficiency in conducting these transactions, which creates satisfaction among them, thereby affecting positive intentions to use the technology again in the future (Diop et al., 2019; Liao et al., 2018; Rafique et al., 2019). Thus, it can be concluded that customers have negative feelings about E-CRM services because not all customer problems can be resolved using E-CRM services, considering that E-CRM services are online services. To resolve these obstacles, customers must visit the nearest bank branch, which will certainly affect customers' attitudes in using E-CRM services.

7. Influence of Usage Intention on Usage Behavior of E-CRM in the banking sector in Indonesia

Based on the results of hypothesis testing 7, it is found that usage intention has a positive and significant effect on usage behavior, with a beta value of positive 69.9% and a p-value of 0.000 < 0.05. Therefore, Ha is accepted, and H0 is rejected. It can be concluded that hypothesis 7 is accepted. This research supports the findings of Altes et al. (2024) who found that usage intention of digital data storage services affects actual usage of digital data storage services by 71.5% (probability value of 0.03 < 0.05). However, this research contradicts the findings of Förster (2024) who found that usage intention affects usage behavior by 25.8% but has a probability value of 0.729 which is greater than 0.05.

This research supports the expert theory that intention represents the level to which someone is willing to try and invest in a particular behavior or the amount of effort they are willing to make to perform a particular action (Robinson, 2019). Basically, intention is the customer's willingness to communicate online with the bank and maintain a good relationship with the bank (Mokha and Kumar, 2021). The intention of potential customers and customers to use E-CRM will make them actually use E-CRM, where individuals who have formed positive perceptions of the benefits and ease of use of a system will actively use the technology in real situations that begin with the intention to use (Altes et al., 2024; Förster, 2024).

Conclusion

Based on the results of this research, the conclusions drawn include:

1. The perception of usefulness has a positive and significant influence on the attitude towards E-CRM usage in the banking sector in Indonesia.

2. The perception of usefulness has a positive and significant influence on the intention to use E-CRM in the banking sector in Indonesia.

3. The perception of ease of use has a positive and significant influence on the perception of usefulness of E-CRM usage in the banking sector in Indonesia.

4. The perception of ease of use has a positive and significant influence on the attitude towards E-CRM usage in the banking sector in Indonesia.

5. The perception of ease of use has a positive and significant influence on the intention to use E-CRM in the banking sector in Indonesia.

6. The attitude towards usage has a negative and significant influence on the intention to use E-CRM in the banking sector in Indonesia.

7. The intention to use has a positive and significant influence on the behavior of using E-CRM in the banking sector in Indonesia.

Limitation

1. It is advisable for further research to incorporate a valence framework consisting of four indicators to measure usage intention, namely: perceived ubiquity, perceived risk, perceived benefits, and perceived cost. This aims to understand the various perceptions experienced by customers before they have the intention to use E-CRM services.

2. It is recommended for future research to add personal norm and perceived behavioral control variables to the Theory of Planned Behavior (TPB) because the Technology Acceptance Model (TAM) is also developed from the Theory of Planned Behavior (TPB). The goal is to identify factors other than perceived usefulness, perceived ease of use, and attitude that can influence the intention to use E-CRM services.

Management Implication

Based on the results of this research, several recommendations can be made:

1. Banks should improve their E-CRM services so that they can address all customer concerns and needs without requiring customers to visit bank branches. This will influence the positive or negative perception of these customers, thereby changing their attitudes to support E-CRM services, which will then lead to an intention to use E-CRM services. Currently, not all customer concerns and needs can be addressed by online-based E-CRM services.

2. Banks should maximize their E-CRM services focusing on online account opening. This presents a significant opportunity for banks to acquire more customers.

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