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Application of The End User Computing Satisfaction Method to Analyze User Satisfaction Toward the Quality of Mobile Banking Services

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Abstract

This research aims to find out how to analyze user satisfaction with the quality of mobile banking application services using the end-user computing satisfaction model. This research adopts a quantitative approach. Use of questionnaires as a data collection tool. Sampling was done using the purposive sampling technique, with a sample size of 100 respondents. Researchers conducted demographic, outer, and inner model analyses using the PLS-SEM approach via Smart-PLS. This research indicates that most mobile banking application users were satisfied with their overall use. The four hypotheses proposed, namely ease of use, perceived usefulness, and timeliness, were all accepted with solid evidence. The results of hypothesis testing show that three hypotheses have a highly significant influence on user satisfaction, namely H5 (perceived usefulness), H4 (format), and H3 (ease of use). These factors, such as user-perceived usefulness, format quality, and ease of use, provide a positive experience for users to feel satisfied with the application. However, two hypotheses are not accepted, indicating that the accuracy variable (accuracy) and content variable (content) do not significantly influence user satisfaction. The purpose of adding the perceived usefulness variable to this research is to obtain information about how practical the application is for users, and the results of the t-test show that this variable has a significant relationship with user satisfaction.

Keywords: Mobile Banking, Service, User Satisfaction, Eucs.

1. Introduction

The banking sector keeps utilizing technology advancements by creating transactions that may be completed automatically. With the use of this technology, users of e-business and e-banking platforms can complete transactions fast and simply [1]. Thanks to technological advancements, the banking sector can now instantly address customer needs by utilizing self-service technology. The banking sector currently provides its customers with a wide range of channel services, including self-service tools like automated teller machines (ATMs), phone banking, online banking, and mobile banking in addition to branch services that can be utilized manually [2]. Consumers can perform a variety of financial operations, including account transfers, bill payments, stock trades, and other financial services, by using websites run by the banking sector or financial institutions. Simultaneous transactions can be completed by m-banking customers through mobile devices like tablets, smartphones, or telephones [3]. The banking sector strives to satisfy its customers by offering simple access and flexibility in handling their money through these diverse service options. An obvious sign of the expansion of the Indonesian banking sector is the country's rising volume of online and mobile banking transactions [4]. The banking sector is changing into a digital bank due to a number of reasons, one of which being the potential for the Indonesian economy to adopt digitization [5]. For banks to offer better customer service, the growth of technology-based banking services, such online and mobile banking, has become essential [6]. However, the transformation of the banking industry into a digital bank also poses a challenge for the banking industry to see from the perspective of their users when using these applications to create user satisfaction [7].

Sharia banks' success in ranking fifth out of the ten best banks in Indonesia demonstrates that implementing m-banking services strategically enhances their effectiveness and competitiveness, positioning them on par with conventional banks [8]. The existence of sharia banks as an alternative amidst the rise of conventional banks has become the main choice for Muslims and people who prioritize sharia principles in their financial activities. The benefits of sharia banks are shown comprehensively by customer satisfaction surveys, which cover topics such as terms and conditions, digital services, financial advice, and aspects of trust. This achievement shows that sharia

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banks do not only focus on financial aspects but also pay serious attention to the implementation of sharia principles. Satisfactory service involves not only financial transactions but also customer trust, easy digital access, and committed customer support and financial advice [9]. Thus, the success of banks in achieving the highest ranking reflects their commitment to providing high-quality banking solutions in line with sharia values and the needs of modern customers. This step provides a strong foundation for sharia banks to continue to develop and make a positive contribution to the world of banking in Indonesia [10].

Organizations' acceptance of the performance of information systems is largely dependent on aspects related to user satisfaction. Thus, user satisfaction aspects must be taken into account while designing, developing, or implementing an information system. In light of this, service quality variables play a crucial role in determining users' level of satisfaction with the services an application offers. The attainment of consumer or user pleasure is contingent upon the quality of services provided [11]. Empirical data in his research demonstrates how a business may boost sales, revenues, and the cost-effectiveness of its operations by concentrating on providing high-quality service. The seven aspects of information quality, system quality, service quality, system use, perceived usefulness, user characteristics, organizational structure, and management style are factors that affect users' satisfaction with information systems [12]. Therefore, with users continuing to increase from year to year and innovation and strategies continuing to develop, it is necessary to evaluate mobile banking applications from the user side. This is to find out whether the user is satisfied with the services provided through the application [13].

Based on the previously presented information, one can conclude that evaluating application performance from the user's perspective requires considering the problems experienced by the user. An analysis of user satisfaction with mobile banking applications is very important because it will provide an idea of how well this application is received by users [13]. This application is an important medium for users to access information and services from banks, so if this application does not meet user expectations, it can have an impact on the image and reputation of a banking institution. You can use a number of models, such the End User Computing Satisfaction (EUCS) and Technology Acceptance Model (TAM), to undertake user satisfaction studies. Using these techniques, it is possible to determine how much user satisfaction is influenced by the mobile banking application's benefits and convenience of use, as well as by other factors like the quality and accuracy of the information provided [14]. The results of user satisfaction analysis can be valuable input for banks in making improvements or enhancements to features and services in mobile banking applications so that users can feel more satisfied and have their information and service needs met. In addition, by conducting regular user satisfaction analysis, banks can measure how effective the mobile banking application is in providing services to users and measure user satisfaction with the application [14].

Therefore, researchers employed the EUCS approach in conjunction with supporting factors from the Technology Acceptance Model (TAM) to look at user happiness in order to determine how satisfied users were with the mobile banking app. The perceived usability measure was included in this study to provide a more complete view of users' satisfaction with the mobile banking app [15]. Researchers take this step to determine the components of the information system and establish standards of success for the application. Researchers detail the components of an information system using certain models and variables, which they then use as guidelines to evaluate the success of the application. This integration of models and variables not only increases generalization capabilities but also helps organize the components that are the reasons for user satisfaction. The EUCS model, or End User Computing Satisfaction, has become a significant evaluation tool for assessing user satisfaction with using a system [16] [17] [18] [19]. This model allows for an even assessment based on the user's experience when using the system. Key factors in the EUCS Model, such as information content, format, accuracy, ease of use, and timeliness, are an important basis for conducting evaluations. By considering all these aspects, this research aims to provide a holistic and in-depth picture of user satisfaction with mobile banking applications, as well as contribute to the continuous improvement and success of the system [20] [21].

2. Research Methods

The researchers chose a quantitative approach for this study because it enables the evaluation of measurable relationships between variables. In applying this method, several important stages need to be carried out, including selecting methods, techniques, and tools that are in accordance with the research procedures in the related subchapter. We initially distributed questionnaires online to active users of mobile banking applications in the some cities via the Google Forms platform. This questionnaire uses a Likert rating scale with five answer choices for each question. Sampling was carried out using the purposive sampling technique, with a total sample of 100 respondents. Researchers then analyze the collected data statistically using appropriate software. Apart from that, researchers also carried out demographic analysis, the outer model, and the inner model by applying the PLS-SEM approach using Smart-PLS. Researchers interpret, conclude, and summarize the research results to provide answers that are appropriate to the research limitations. This approach allows researchers to investigate

in depth the relationships between variables and gain significant insights regarding user satisfaction with mobile banking applications.

3. Results and Discussion

The accuracy (ACC) and user satisfaction (US) variables do not significantly correlate, according to the structural model analysis results, with a value of 0.05. Given that the t-test result is 0.8, we can rule out hypothesis H1. This result is in line with earlier studies' findings, which also indicated that the accuracy variable has little bearing on user happiness. However, a high level of accuracy in the system does not always result in an equally high level of user satisfaction. This conclusion indicates that the level of accuracy does not directly correlate with user satisfaction with mobile banking applications. Therefore, this research provides recommendations that mobile banking applications need to focus their efforts on improving reputation and building trust with users. Mobile banking applications need to consider the accuracy of the information they provide. Strategic steps may involve increasing information transparency, providing clear confirmations, and improving error reporting or recovery processes. In this way, mobile banking applications can create a more satisfying user experience and increase the level of customer trust in the accuracy of the information provided by the application. Significant improvements in the accuracy variable are expected to positively impact user satisfaction and overall enhance the performance and reputation of mobile banking applications.

User satisfaction (US) and content (CON) are related, according to the findings of the model's structural analysis. Nonetheless, the 0.09 test result and 1.95 t-test value suggest that hypothesis H2 should be rejected. Thus, we draw the conclusion that there is no discernible relationship between the content variable (CON) and user satisfaction (US). The study results indicate that while content factors and user satisfaction have a substantial association in the model, this effect does not reach the expected level of significance. These results emphasize how intricate the connection is between user pleasure and content quality. Good content can draw in more customers and make a product or service seem more appealing, but this does not guarantee that those customers will be happier. A visually beautiful piece of content doesn't always translate into an improved user experience overall. It's crucial to keep in mind that an item or service's visual appearance does not always correspond to its overall level of functioning. While a product or service may impress users, their functionality may leave them feeling unhelpful or distracted. Developers must therefore consider the whole quality of the good or service rather than concentrating only on its appearance. Recommendations for improving content quality involve better adapting to user needs and preferences and providing significant added value to users. In this way, developers can ensure that the content presented is not only visually appealing but also meets user expectations and contributes to overall user satisfaction.

The results of the structural model analysis revealed a lack of a significant relationship between the ease of use (EOU) and user satisfaction (US) variables, with a path coefficient of 0.25. Nonetheless, the t-test produced a result of 2.9, indicating that hypothesis H3 is accepted. These findings demonstrate the strong relationship between ease of use and user satisfaction, with the chance of a fulfilled and pleasant user experience increasing with a product or service's simplicity of use. A product or service's perceived ease of use plays a significant influence in how users see it. Easy-to-use products and services facilitate faster learning and adaptation by users. This has the potential to both lower consumers' feelings of annoyance and raise their happiness. On the other hand, a complicated and perplexing good or service may lead to a great deal of annoyance and decreased customer satisfaction. Not only does simplicity of use improve customer pleasure, but it also increases productivity and efficiency. Users can complete tasks more quickly by easily using a product or service, reducing the time spent learning how to use it. Thus, increasing ease of use not only creates a more satisfying user experience but also increases user efficiency and productivity towards a product or service.

The results of the structural analysis of the model show that the format (FOR) has a relatively small influence on user satisfaction (US), as shown by the t-test value of 2.9 and a significant path coefficient of 0.2, so hypothesis H4 can be accepted. These findings indicate that the influence of format variables on user satisfaction does exist, although it is not significantly significant. It is important to note that proper content formatting plays an important role in improving the understanding and accessibility of a product or service by users. Applying appropriate formats enhances the understanding and accessibility of products or services, thereby increasing user satisfaction. The ease of obtaining information or enjoying content according to user needs can make a positive contribution to their level of satisfaction. Additionally, the right content format can also increase user engagement with the product or service. For example, using engaging video formats can help create higher engagement, allow users to better connect with the content presented, and ultimately create a positive experience. High involvement is expected to contribute to increased user satisfaction and a positive impression of the product or service.

As indicated by the t-test value of 3.9 and a significant path coefficient of 0.3, the structural model analysis results indicate that perceived usefulness (POU) has a relatively minor but significant impact on user satisfaction (US). Therefore, hypothesis H5 is supported. This research reveals that the more users feel that a service or

product is useful, the higher the level of user satisfaction with the service. Users perceive that a service or product meets their needs and helps them achieve their goals, explaining this phenomenon. When users feel that a service or product provides significant benefits, they tend to feel satisfied and happy with the experience of using the service. In addition, the feeling that the service is useful also motivates users to recommend the service or product to others. This positive impact can contribute to increasing the popularity and reputation of a service or product, as well as strengthening the relationship between users and the service or product. Thus, increasing user perceptions of the usefulness of a service or product can be a key factor in increasing user satisfaction, expanding market share, and building strong relationships between service or product providers and users.

The model's structural analysis shows that timeliness (TIM) has a small but significant effect on user satisfaction (US). The t-test value of 2.1 and the significant path coefficient of 0.112 support this. Therefore, we can accept hypothesis H6. This research highlights that when a service is able to provide fast and timely responses to user requests, this can increase user satisfaction levels. In the context of services, timeliness in responding to user requests is an important key to creating a positive user experience. Quick responses help ensure that users feel valued and prioritized, which in turn can increase their satisfaction levels. On the other hand, if users face long waiting times to get a response from the service, this can reduce user satisfaction levels. In addition, timeliness in resolving user problems also has a significant impact on user satisfaction. If a service can respond to and resolve user problems quickly and accurately, this can strengthen the user's positive perception of the service. Conversely, slow or inaccurate handling of user problems can reduce satisfaction levels. Based on these findings, it is important for service providers to prioritize timeliness in response and problem resolution in order to increase user satisfaction, in line with previous research that also shows a significant impact between the timeliness variable and user satisfaction.

Based on the results of the conducted model structure testing, researchers have concluded that some hypotheses are accepted while others are rejected. So based on the results of the analysis above, researchers will provide several recommendations for other sharia banks. The recommendations given are: Improving service quality by improving the performance of available features so that users can understand and use them comfortably. It is best for application developers to pay attention to the efficiency of the available features so that there are not too many that confuse users. Improve service quality by displaying an attractive application appearance so that users feel interested in using the application. Improving service quality in terms of security is necessary in order to create trust among users. Improving the quality of information provided will help banks ensure that customers receive quality information that is relevant to their needs. Increase the responsiveness of bank customer service, including the time required to respond to customer questions or complaints via communication channels such as telephone, email, or online chat.

4. Conclusion

The conclusion of this research shows that the majority of mobile banking users are satisfied with their overall use. Fairly strong evidence accepted four out of the six proposed hypotheses, indicating that the variables of ease of use, format, perceived usefulness, and timeliness significantly influence user satisfaction. The results of the hypothesis test highlight three hypotheses with a significant influence on user satisfaction, namely perceived usefulness (H5), format (H4), and ease of use (H3). Users feel satisfied because the application provides perceived benefits, presents a comfortable and clear format, and is easy to use. However, two hypotheses do not support the notion that accuracy and content significantly influence user satisfaction. Research suggests that developers improve features that support user satisfaction based on the analysis results, obtaining an understanding of application usability through the perceived usefulness variable. The results of this research provide a number of suggestions that can be considered by parties who plan to continue research on the same topic. First, future research should maximize population selection to include mobile banking application users from various regions in Indonesia rather than focusing solely some cities. Expanding regional coverage to several other regions in Indonesia can provide more diverse results and represent a variety of user experiences. Second, research supports modifications to the EUCS model by adding other models or changing questionnaire questions, as well as selecting more appropriate indicators to explore aspects of user satisfaction. Finally, for Indonesian sharia banks, it is recommended to pay attention to and develop accuracy and content variables in their system. A high level of accuracy in mobile banking can increase user confidence in the information and transactions carried out through the application. Meanwhile, quality and interesting content can improve users' experiences with mobile banking, making it easier for them to find the information they are looking for with an attractive and easy-to-understand display. Implementing these suggestions can lead to further research providing a deeper and more varied contribution to the understanding of mobile banking application user satisfaction.

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