

# Analysis of fintech user satisfaction among Medan City MSMEs

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**Abstract.** The study aimed to examine the effect of information quality and system quality on fintech user satisfaction among MSMEs in Medan City. This study used primary data in the form of questionnaires, which were distributed to 156 MSMEs in Medan City. This research resulted in the quality of information having a significant positive effect on fintech user satisfaction among MSMEs, as well as the quality of the system having a significant positive effect on fintech user satisfaction among MSMEs. The contribution of this research is that MSME players can maximize the benefits of fintech applications by understanding how to use them optimally and utilizing accurate information for better decision-making.

**Keywords:** information quality, system quality, satisfaction, fintech, MSMEs.

## 1 Introduction

The rapid development of the world of technology has made information technology a component needed for successful performance in a business venture and an organization. Technology is essential in developing a business unit that is provided for user satisfaction [1]. In the technology industry, the internet has removed distance barriers, making it easier for people to make transactions. Information technology is widely used to provide maximum and optimum services to users in a competitive environment [2].

The use of technology today has entered all aspects, starting from social life, education, the business world, and trade. This technological development has changed many processes in the daily financial aspects. Technological developments can support changes in product innovation, services and business models in this fast-paced and efficient era [3]. The increasing number of internet users yearly supports information technology's rapid development. The use of the internet is one of them used in fintech.

Based on data from the Statista website, in January 2022, 5.77 billion active internet users were found worldwide. This figure is certainly high enough to adjust to the increase in the

world's population. Then, according to data in Indonesia, internet usage in 2021 is as many as 196 million active users. The Minister of Communication and Information stated that in early 2021, the State of Indonesia occupied the fourth largest number of internet users in the world, and the percentage of users from the population was 73.7% or 202.6 million. According to APJII, in 2021, the highest number of internet users in Indonesia, especially the Sumatran island category, is the Medan City area, with 29.4 million users. The increase in internet users has triggered a high level of public use of smartphones. So, in this case, it is unavoidable that digital technology is also increasingly advanced in providing convenience for all aspects of activities or activities carried out, such as financial transactions via smartphones. The method of financial transactions carried out via smartphones is called fintech, a technological innovation in financial transactions [4]. There are several types of Fintech in Indonesia, such as payment systems, crowdfunding, peer-to-peer (P2P) lending, digital banking, and online or digital insurance. [5];[6].

Fintech continues to upgrade or renew by providing flexibility to users, such as in terms of promotional programs and price discounts given to merchants who work with fintech. [7]. Fintech has also become an increasingly popular financial solution among MSMEs because it provides accessibility and convenience in making transactions and getting financial services. [8];[9]. Along with the growth of fintech, it is important to understand how the quality of information provided by fintech platforms can affect the satisfaction of MSME users. Fintech use among MSMEs continues to experience rapid growth. Fintech provides convenience and innovation in financial services for MSMEs, such as financing, payments and financial management [10]. Therefore, it is important to understand how the quality of the fintech system affects MSME user satisfaction.

Besides that, the role of information in business decisions is an essential key in making business decisions [11]. MSMEs that heavily depend on fintech to fulfil their financial needs are in critical need of precise, pertinent, and conveniently available information. MSMEs that use fintech with a high-quality system tend to be superior in business competition. By utilizing effective financial technology, MSMEs can increase market access, achieve better growth, and empower their business potential. Therefore, research on the quality of information in the fintech context will provide insight into its impact on MSME business decisions. User satisfaction has a close relationship with the long-term use of a platform. Suppose MSMEs are satisfied with the information and system quality offered by the fintech application. In that case, they will continue to use the application and even recommend it to others. [12].

The results of this research are expected for fintech companies and other stakeholders to develop marketing strategies and extension campaigns that are more targeted and more effective investments. This will help increase user awareness about the benefits of fintech and how best to take advantage of it. Another contribution from this research is expected to help fintech companies manage risks related to information quality and system quality. Companies can take the necessary corrective steps to reduce the risk of failure and dissatisfaction to achieve competitive advantage by understanding the areas that affect user satisfaction.

#### Hypothesis Development

System quality can be defined as a measure of information system processing [13]. In addition, [14];[15] said system quality is an expected characteristic of an information system. So, system quality measures the information system, which focuses on the interaction between

system users and the system itself. The better the quality of a system, the more the user feels satisfied after using the system because the lower the error, the higher the system's accuracy. Besides that, the faster a system, the more the user feels satisfied when using the system [15]; [13]. [16] states that the level of user satisfaction is an attitude that emerges from him after using the system. There are different ways to express satisfaction with a system: dissatisfied with the system, satisfied with the system, and delighted with the system. When interacting with the system, there are differences in the level of user satisfaction. Users get the benefits when operating and mastering a system. System users who get the desired results from the system will feel more satisfied and continue to use the system [17]. System quality has a good relationship with user satisfaction [17];[18]. System quality has a strong relationship to user satisfaction [19]; [20]. This was also proven in research [21] which concluded that system quality positively affects user satisfaction.

H1 : System quality has a significant positive effect on fintech user satisfaction among MSMEs

Information quality is a measure of the output quality of the information system [22]. Information quality can also be interpreted as a measurement of the quality of the content of an information system [23]. Information quality is a measurement that focuses on the output produced by the system and the value of the output for the user. The higher the accuracy of a system, the quality of information in the system works and is very helpful for deciding so that users feel satisfied when using the system. [18] stated that the level of user satisfaction is an attitude that arises from him after using the system. [24] states that the quality of information has a positive influence on user satisfaction. There is a consistent relationship between the quality of information and user satisfaction [20]. Research conducted by [18] concluded that information quality has a significant relationship to the variable user satisfaction.

H2 : Information quality has a significant positive effect on fintech user satisfaction among MSMEs

## **2 Method**

This type of research is descriptive quantitative with statistical tests by describing the phenomenon or social symptoms studied for further description of the variable values independently. Data collection techniques in this research used primary data in questionnaires by distributing 200 samples from the Medan City MSME population using the Slovin formula. The object of this research was carried out on MSME players in Medan City who have used and are still using fintech in their business transactions over the last three years. The sampling technique uses non-probability sampling from the MSME population in Medan City, whose exact number is unknown.

This study uses SEM-PLS to analyze the data. SEM-PLS is a statistical multivariate analysis to analyze several research variables simultaneously and is used to test the relationship of the hypotheses used in this study. SEM PLS is a causal modelling approach that aims to maximize the variance of criterion/endogenous latent variables that can be explained by predictor/exogenous latent variables [25]. The predictive ability to assess the quality of the

PLS-SEM model is carried out by evaluating the criteria in the measurement and structural models [26].

This study uses 1 (one) dependent variable, namely fintech user satisfaction, and 2 (two) independent variables, namely information quality and system quality. The research questionnaire used a 5-point Likert scale. While the research instruments were adapted from several previous studies, namely information quality and system quality, adapted from [27], satisfaction was adapted from [28]. The research instrument was tested with validity and reliability tests. The validity test is carried out by looking at the Average Variance Extracted (AVE) value, if the AVE value is  $> 0.5$ , the instrument is declared valid [29]. The reliability test is carried out by looking at the Cronbach's alpha value, if the alpha value is  $> 0.7$  the instrument is declared reliable [29]. After testing the instrument, then testing the hypothesis using the SEM-PLS analysis technique with the Smart-PLS analysis tool.

### 3 Results

The final result of distributing the questionnaires was that 156 respondents were collected from the sample who had met the research data criteria and could be further processed. Table 1 below describes the demographics of the research respondents.

**Table 1.** Respondent Demography.

Characteristics	Criteria	Total	Percentage (%)
Gender	<i>Man</i>	74	47%
	<i>Woman</i>	82	53%
Business Length	<i>1-5 year</i>	90	58%
	<i>6-10 year</i>	41	26%
	<i>11-15 year</i>	12	8%
	<i>16-20 year</i>	9	6%
	<i>&gt;20 year</i>	4	3%
Education	<i>Middle School</i>	7	4%
	<i>High school</i>	108	69%
	<i>Diplomas</i>	9	6%
	<i>Undergraduate</i>	31	20%
	<i>Master</i>	1	1%
Business Sector	<i>Commerce</i>	53	34%
	<i>Service</i>	21	13%
	<i>Culinary</i>	80	51%
	<i>Manufacture</i>	2	1%

The research evaluation model was conducted in two stages: evaluation of the measurement model and evaluation of the structural model. Validating the measurement model (outer model) used internal consistency reliability, convergent validity and discriminant validity. Internal consistency reliability is a conservative approach commonly used in Cronbach Alpha, an estimate based on the intercorrelation of latent variable indicators. Reliability analysis needs to be completed with Composite Reliability (CR). Construct validity was assessed by

convergent validity and discriminant validity. Convergent validity can be measured through average variance extracted (AVE). The results of the research instrument testing showed that the AVE value for each construct was  $> 0.5$  and Cronbach's alpha  $> 0.7$ .

**Table 2.** Construct Reliability and Validity.

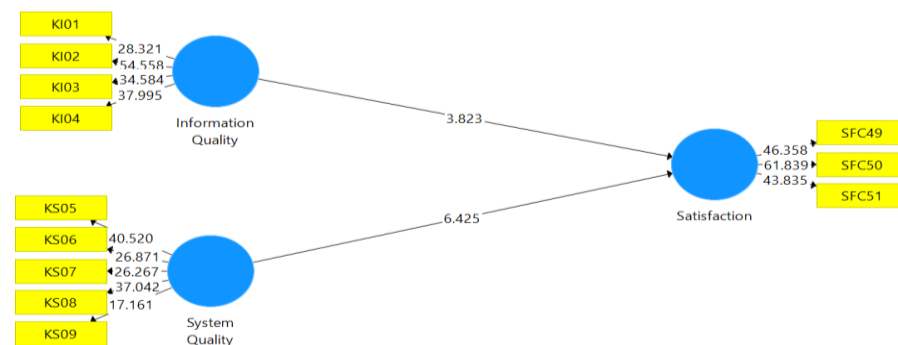
	Cronbach's alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Information Quality	0.910	0.912	0.937	0.787
Satisfaction	0.896	0.897	0.935	0.828
System Quality	0.912	0.916	0.934	0.740

In Table 2, the criteria have fulfilled the requirements of discriminant validity. The heterotrait-monotrait ratio (HTMT) approach was used to complete the discriminant validity test results, which were processed with Smart-PLS, and the results can be explained in Table 3.

**Table 3.** Discriminant Validity HTMT.

	Information Quality	Satisfaction	System Quality
Information Quality			
Satisfaction	0.807		
System Quality	0.774	0.854	

Next, the structural model (inner model) is evaluated to predict the causal relationship between the latent variables and the unobserved variables directly by looking at the R-squared value. Evaluating the structural (inner) model facilitates testing the research hypothesis by testing how much variance is explained to determine the p-value significance level. The results of hypothesis testing show that the quality of information has a positive and significant effect on fintech user satisfaction among MSMEs. This shows that Hypothesis 1 is supported by obtaining a T-statistics value =  $3.823 > 1.96$  and a significance of  $0.00 < 0.05$ . Testing hypothesis 2 also shows support where system quality has a positive and significant effect on satisfaction using Fintech for MSME actors with a T-statistics value =  $6.425 > 1.96$  and a significance of  $0.00 < 0.05$ .



**Fig. 1.** Structural Model Results.

## **4 Discussion**

The quality of a system due to speed, ease of use, ease of navigation, and attractive interface will make users feel satisfied with the information system they use [27];[30]. These findings indicate that with a good perception of system quality, MSME actors, especially in this case, who use fintech in their business transactions, will benefit while using the application [31]. atisfied users because the fintech application has good system qualities, such as ease of use, the system can be accessed easily and quickly, the system is resistant to damage, and data security guarantees for users [19];[20]. Thus, the success of implementing fintech is determined by the more satisfied its users and partly due to the excellent quality of the fintech application. Technology users are satisfied if the information and data generated and received are accurate and reliable to be used as a basis for decision-making. The results of this study are also in line with the view of the Theory of Planned Behavior, that individuals will use the system if the system can help them get the job done faster, with better results.

The results of this study are also in line with the theory of planned behaviour, which explains that every individual needs information before deciding to behave or not to behave. Adequate fintech can provide quality information to satisfy users with the financial transaction information provided [32]. These findings indicate that with a good perception of the quality of information, it is shown from experience using fintech applications that they can provide information according to user expectations. The quality of the information provided by fintech applications can be assessed from its relevance, accuracy, reliability and presentation of output or up-to-date information [27];[30]. Based on the results of this study, it has strategic implications for fintech providers that increasing fintech user satisfaction among MSMEs can be achieved through improving system quality and information quality [15];[20]. To maximize fintech users, the quality of the fintech system needs supervision [33]. The alternative that can be done is to always maintain data storage stability for MSME business financial transactions, especially regarding files or data storage and updating hardware devices.

## **5 Conclusion**

This study concludes that system and information quality affect user satisfaction, especially in using Fintech by MSMEs in business transactions. Users are satisfied with fintech applications with speed, ease of use, navigation, and an attractive interface. The success of implementing fintech is strongly influenced by the level of satisfaction of its users, which is due to good system quality, ease of use, speed of access, system robustness, and data security. In the context of MSMEs and Fintech, the success of fintech providers can be achieved by improving the system's quality and the quality of the information presented to users. Supervision of the quality of the fintech system, including the stability of financial transaction data storage, hardware updates, and data security, is essential to ensure user satisfaction and the successful

implementation of Fintech among MSMEs. On the other hand, MSME users can also maximize the benefits of fintech applications by understanding how to use them optimally and utilizing accurate information for better decision-making.

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