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Original Article

Application of the DeLone and McLean Model to Fintech P2P Lending Users during the Covid-19 Pandemic

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Abstract *- Fintech lending as a digital-based financial service plays an important role as an easy source of funding to help people amid financial difficulties during the Covid-19 pandemic. Data from the Financial Services Authority shows a significant increase in the accumulation of fintech lending in 2020, reaching IDR 35 trillion with an annual growth of 135 percent. This study provides empirical evidence regarding applying the DeLone and McLean Model to fintech lending users. The research location is Denpasar City, with a total population of the entire population of Denpasar City. The sample was determined using a non-probability sampling technique, namely snowball sampling, to obtain a sample of 100 people. Data was collected using a survey approach, and this research instrument was a questionnaire measured using a Likert scale. Data analysis was performed using the PLS method. The results showed that of the 9 hypotheses, 3 were rejected and 6 were accepted. The DeLone and McLean information system success model is not yet fully validated. This finding is useful for fintech lending service providers due to factors that increase the use and satisfaction of fintech lending users. For further researchers, the results of this study can be used as a reference for future research development.*

Keywords *- Fintech lending, DeLone and McLean model, Covid-19 pandemic.*

1. Introduction

Indonesia is one of the countries affected by the Covid-19 virus, which caused an economic crisis during the pandemic. The Covid-19 pandemic has changed various aspects of people's behavior because almost all activities have been hampered. This requires the community to be accustomed to changes and adapt to the surrounding conditions. One of the significant changes is digital-based activities. Fintech stands for financial technology, which is a combination of technology and the financial system. Fintech products are usually in the form of a system built to carry out specific financial transaction mechanisms. One such system is peer-to-peer (P2P) lending, an online platform-based practice that brings together people who need funds with people willing to lend their money. Based on the Financial Services Authority statistical data as of July 2020, the accumulated loan disbursement in 2020 (January to July) through fintech reached IDR 35 trillion with annual growth reaching 135 percent (July 2020, year-on-year). This shows that public interest in lending through fintech is growing during the pandemic (Financial Services Authority, 2020).

The Bareksa survey (2020), which involved 1,385 fintech companies from 169 countries, showed that 12 of the 13 fintech sectors recorded performance growth in the first half of 2020 compared to the first half of 2019, with the digital lending sector recording the best performance. In Indonesia, in October 2020, the realization of accumulated loan disbursements grew by 102.44% YoY compared to October 2019 (Kontan.co.id, 2020). Coordinating Minister for the Economic, Darmin Nasution at the Indonesia Fintech Forum, stated that P2P lending recorded the fastest development among other types of fintech. The development of lending to individuals/businesses reached 40%. Vasenska et al. (2021) explained that fintech was more competitive than the traditional banking system during the Covid-19 pandemic. Fintech is an alternative to reduce the risk of Covid-19 spread (Imerman and Fabozzi, 2020), minimize the risk of physical contamination (Sahay et al., 2020) and can save costs (Vasenska et al., 2021). Based on Table 1., loan distribution in Bali Province in 2021 has increased to the highest in October 2021, reaching Rp185.80 billion. This shows the Balinese people's high interest in using fintech lending.

Table 1. Distribution of Bali Province Fintech Lending Loans in 2021

Period	Amount of Loan Disbursement (Billion Rupiah)
January 2021	103.98
February 2021	107.97
March 2021	137.01
April 2021	133.73
May 2021	152.12
June 2021	162.92
July 2021	163.86
August 2021	165.86
September 2021	185.39
October 2021	185.80
November 2021	154.33
December 2021	164.24

Source: The Financial Services Authority, (2021)

Most of the literature studies on COVID-19 have focused solely on the impact of the pandemic on financial markets, including stock market volatility (Yong & Laing, 2020; Anh & Gan, 2020), liquidity Farzami et al., (2021); Fassas et al., 2021), and company performance Hu & Zhang (2021); Liu et al., (2021); Demirgüç-Kunt et al., (2021). Research on the impact of Covid-19 on the financial performance of the digital financial sector, such as fintech lending in Indonesia, has not been found, so further research is still needed.

Various studies have been conducted on the factors that lead to the success of information systems. DeLone and McLean (2003) conducted research in the spotlight and stated that information, system, and service quality positively affected user satisfaction. However, there are inconsistent research results, and research states that system quality positively affects user satisfaction (Dalhan and Akkoyunlu, 2016). Still, other studies state that system quality does not affect user satisfaction (Roky and Meriouh, 2015). Information quality positively affects user satisfaction (Lian, 2017), but other studies stated that information quality does not affect user satisfaction (Koo et al., 2013). Service quality positively affects user satisfaction (Tam and Oliveira, 2016), but other studies stated that service quality does not affect user satisfaction (Al-Debei et al., 2013).

System quality refers to perceptions derived from the system's overall performance (DeLone and McLean, 2003). Lee and Chung (2009) claim that users' first impressions are based on their experience with the system. If the system is slow, difficult to use, and unstable, users will likely worry about their financial transactions due to system malfunctions and failures (Ryu, 2018). Information quality refers to an individual's perception of a service provider's ability to meet user needs (DeLone and McLean, 2003). Inadequate, inaccurate, or outdated information makes users doubt the capabilities of fintech providers (Zheng et al., 2013), (Lee and Chung, 2009). Service quality refers to an individual's perception of the level of support received from his information and IT support systems (DeLone and McLean, 2003). When a provider offers fast response and proficient service, users believe that the provider can meet their expectations. This can provide a pleasant experience for users (Gao & Waechter, 2017).

2. Research Hypothesis

2.1. The Effect of Information Quality on the Use of Fintech Lending

The theory of planned behavior, especially behavioral belief, is an individual's belief in the outcome of behavior. Individuals who have confidence that the information quality from a system is good are sure to get good results as well. The use of the system can be demonstrated by good quality information, which then provides convenience and benefits for users (Chen et al., 2015) (Tam and Oliveira, 2016); (Farizi et al., 2020). Information quality includes complete, relevant, easy-to-understand, and secure content from fintech that users expect when using fintech (DeLone and McLean, 2003). When users feel that the information presented by an application benefits and values users, it encourages them always to access the application (Han et al., 2016); (Sharma and Sharma, 2019).

H1: Information quality has a positive effect on the use of fintech lending

2.2. The Effect of Information Quality on Fintech Lending User Satisfaction

The theory of planned behavior assumes that individuals need information before deciding to behave. This is related to behavioral belief, where individuals will believe that if the quality of the information is good, then the individual is sure of good results as well, so that good results will lead to satisfaction in using the system. Users will be satisfied using the system because the presented information can help them use it better (Chen et al., 2015). Good quality information will produce useful and valuable decisions for users. Previous research found that information quality has a positive effect on system user satisfaction (Tam and Oliveira, 2016), (Christanti, 2019), (Pramanita and Rasmini, 2020) and (Shim and Jo, 2020).

Research by Silalahi and Pramedia (2018) and Pramanita and Rasmini (2020) states that information quality has a positive and significant effect on user satisfaction. The results of this study support the results of the information system success model developed by DeLone and McLean (2003), which found that information quality is one indicator to measure the success of information systems. Similarly, the results of research by Ratnaningrum and

Muhammad (2015), Bari (2011), and Salim (2014) state that there is a positive and significant relationship between information quality and user satisfaction. User satisfaction is a feeling or attitude that arises from the user after interaction with the system. User satisfaction can occur when the information obtained meets the user's expectations.

H2: Information quality has a positive effect on the satisfaction of fintech lending users

2.3. The Effect of System Quality on the Use of Fintech Lending

Behavioral belief in the theory of planned behavior describes the extent to which individual beliefs about the availability of infrastructure and techniques to support a system in providing good results for its users. A high-quality system will provide a more comfortable, safe, and fast response to users, increasing usage (Rana et al., 2015). Users will often use a system that can process data into information that suits their needs because it can facilitate task completion. The results of previous studies showed that there was a positive relationship between system quality and system use (Tam and Oliveira, 2016); (Alzahrani et al., 2017); (Veeramootoo et al., 2018); (Pramanita and Rasmini, 2020); (Masunga et al., 2020). Research by Silalahi and Pramedia (2018) states that system quality has a positive and significant effect on usage. The results of this study support the results of the information system success model developed by DeLone and McLean (2003), which found that system quality is one indicator to measure the success of information systems. Salim's research (2014) results also state a positive and significant relationship between system quality and system use. If the quality of the information system is good, then the user will repeat the use of the system in the future.

H3: System quality has a positive effect on the use of fintech lending

2.4. The Effect of System Quality on Fintech Lending User Satisfaction

The theory of planned behavior, especially behavioral belief, explains that individuals have confidence in using a system because it can help them complete work faster with better results. High-quality hardware can improve performance and provide user satisfaction (DeLone and McLean, 2003). Several studies found that system quality has a positive effect on user satisfaction (Chiu et al., 2016), (Hambali, 2020), (Veeramootoo et al., 2018), and (Masunga et al., 2020).

The results of previous studies by Ratnaningrum and Muhammad (2015), Salim (2014), and Bari (2011) stated that there was a positive and significant relationship between system quality and user satisfaction. Differences in satisfaction levels occur due to differences in user expectations of reality when interacting with the system. The ability of individual users to operate and control a system determines the benefits that will be obtained, which affects the users' satisfaction.

H4: System quality has a positive effect on the satisfaction of fintech lending users

2.5. The Effect of Service Quality on the Use of Fintech Lending

Behavioral belief in the theory of planned behavior explains that individuals will use an information system if they believe there is a positive benefit from using the system. Service quality is useful for evaluating the success of various systems (Shahzad et al., 2021). High service quality can increase usage and meet user performance and expectations (Weerakkody et al., 2013). Several studies have found that service quality has a positive effect on system use (Chiu et al., 2016), (Tam and Oliveira, 2016), (Alzahrani et al., 2017) and (Rahi and Ghani, 2019).

Previous research by Salim (2014) stated a positive and significant relationship between service quality and usage. It is also consistent with the research model DeLone and McLean (2003), which states that service quality significantly impacts the use of information systems. Service quality is related to the services the information system provides that can guarantee that its customers are free from danger, risk, or harmful things. Service quality is also related to a caring attitude and the ability to understand user desires, and being able to provide fast service. If the service quality is low, users will feel less comfortable using fintech services, thus causing the intensity of use to decrease.

H5: Service quality has a positive effect on the use of fintech lending

2.6. The Effect of Service Quality on Fintech Lending User Satisfaction

Behavioral belief in the theory of planned behavior explains that attitudes will affect individual behavior through a planned decision-making process because it positively affects them. The good service quality provided by system developers will refer to user satisfaction, so they intend to use the system continuously and recommend the system to others. Service quality is one of the key factors of user satisfaction. The success of system services leads to increased user satisfaction (Trihandayani et al., 2018). Several studies found that service quality has a positive effect on user satisfaction (DeLone and McLean, 2003), (Nurjaya, 2017), (Shim and Jo, 2020), (Farizi et al., 2020), (Pramanita and Rasmini, 2020), (Hambali, 2020).

Service quality includes the support provided by service providers, such as special attention and security guarantees for users (DeLone and McLean, 2003). Service quality is the key driver of intention to use and application satisfaction (Sharma and Sharma, 2019). Various studies have tested service quality as one of the drivers of the effectiveness and

success of an information technology system. Users get convenience in personal services such as understanding the problems experienced by users, so they can improve the experience and interaction in the application, which can ultimately increase user satisfaction (Sharma and Sharma, 2019); (Baabdullah et al., 2019); (Wilson and Mbamba, 2017). Silalahi and Pramedia (2018) state that service quality positively and significantly affects user satisfaction. Likewise, the results of Salim's research (2014) state a positive and significant relationship between service quality and user satisfaction.

H6: Service quality has a positive effect on fintech lending user satisfaction

2.7. The Effect of Fintech lending User Satisfaction on the Use of Fintech Lending

The theory of planned behavior, especially in behavioral belief, refers to an individual's belief in the outcome of behavior. User satisfaction is the response of users after using the system. If the individual gets good results, it will trigger repeated use. It will also influence the individual to suggest using the system in his social environment because it is based on his personal experience by obtaining satisfactory results from the system.

Based on the formulation of the DeLone & McLean model, usage and user satisfaction are closely related. Use must precede user satisfaction in a process sense, but positive experiences with use will result in greater user satisfaction in a causal sense (DeLone and McLean, 2003). Research by Tam and Oliveira (2016) shows user satisfaction influences system use. The results show that system users are more likely to use the system if they feel satisfied.

H7: The fintech lending user satisfaction has a positive effect on the use of fintech lending

2.8. The Effect of the Use of Fintech Lending on Net Benefit

Behavioral beliefs in the theory of planned behavior are related to individual beliefs about the results of their behavior. Individuals who use fintech lending believe this system will produce good benefits for themselves. This net benefit is the impact of the existence and use of information systems on the quality of user performance both individually and in organizations. The net benefit indicator is the increase in performance, efficiency, and effectiveness, as well as productivity, so that the impact given to individuals related to the use of the system is to save time and cost.

Research by Silalahi and Pramedia (2018) states that using fintech lending has a positive and significant effect on net benefits. These results indicate that the use of the system seen from the intensity of use significantly impacts individual performance. The hypothesis of this study support previous research, Salim (2014), which obtained the results that there was a positive and significant relationship between use and net benefit. The hypothesis of this study also supports the information success model developed by DeLone and McLean (2003).

H8: The use of fintech lending has a positive effect on net benefits

2.9. The Effect of Fintech Lending User Satisfaction on Net Benefit

Behavioral belief in the theory of planned behavior refers to individuals who are satisfied with the results of using fintech lending because they believe there will be good results from using the system. User satisfaction is the response and feedback generated by the user after using the system. If user satisfaction is high, the system provides high benefits to individuals. User satisfaction indicates that the information system has succeeded in meeting the aspirations or needs of the user.

Research by Silalahi and Pramedia (2018) states that user satisfaction has a positive and significant effect on net benefits. The hypothesis of this study aligns with the information success model developed by (DeLone and McLean, 2003). Similar results were also shown in research (Ratnaningrum & Muhammad, 2015), (Salim, 2014) and Bari (2011) stated that there was a significant relationship between user satisfaction and net benefits.

H9: The fintech lending user satisfaction has a positive effect on net benefits

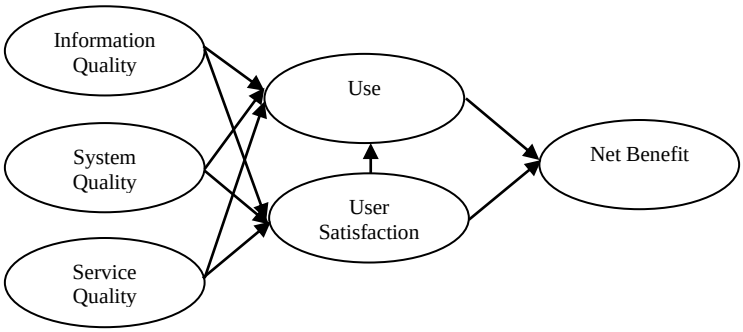

Fig. 1 Conceptual Framework

3. Materials and Methods

This research was conducted in the Bali Province, especially in Denpasar City. Considering the high use of the internet, which is 81.55%, it shows that respondents are very potential to use fintech lending in Denpasar City. The operational definitions of the variables used in this study can be explained as follows:

3.1. Information Quality

Measuring the quality of information system output with indicators of completeness, ease of understanding, personalization, relevance, and security.

3.2. System Quality

Evaluate and measure the system that processes the information with adaptability, availability, reliability, response time, and usability indicators.

3.3. Service Quality

Evaluate and measure services provided by system providers with indicators of assurance, empathy, and responsiveness.

3.4. The Use of Fintech Lending

Measuring the output consumption of an information system with indicators of nature of use, the number of programs used, and the number of transactions executed.

3.5. User Satisfaction of Fintech Lending

Measuring the response or feedback from the use of information systems with indicators of repeat program use and user surveys.

3.6. Net Benefit

The dimension of measuring success is the most important because it measures the positive and negative impacts on individuals. The measurement is carried out with indicators of cost savings, reduced search costs, and time savings.

Respondents in this study were residents of Denpasar City. Based on data from the Central Statistics Agency in 2020, the population in Denpasar City reached 962,900 people. The sampling technique used in this study is a non-probability sampling technique, namely snowball sampling. The snowball sampling technique in determining the sample is to choose one or two people, then this sample chooses his friends to be sampled, and so on so that the number of samples becomes large. It's like a snowball that rolls and gets bigger and bigger. Determination of the minimum number of samples that must be met in this study will be calculated using the Slovin formula so that the number is representative considering the size of the population. The calculation of the sample determination using the Slovin formula is as follows.

$$n = \frac{962{,}900}{1 + 962{,}900\ (0.1^2)}$$

$$n = 99.98$$

$$n = 100 \text{ (rounded)}$$

Based on the above calculations using the Slovin formula, the number of research samples is 100 samples of Denpasar City residents. The data collection method in this study was conducted by survey method using the questionnaire technique. Questionnaires were distributed online via Google Forms. Respondents' answers were measured using a 5-point Likert scale.

The data analysis technique used in this study uses the Partial Least Square (PLS) approach. PLS is a component- or variant-based Structural Equation Modeling (SEM) equation. PLS analysis has three analytical models; the inner model describes the relationship between latent variables, the outer model describes the relationship between latent variables and indicator variables, and hypothesis testing using bootstrapping.

4. Results and Discussion

Denpasar City is the capital city of Bali Province and the center of government, education, and economy. The respondents used in this study were 100 fintech lending users who live in Denpasar City. Respondents in this study have various characteristics or different identities in filling out the questionnaire. The characteristics of the respondents are presented in Table 2. as follows.

Table 2. Respondent Characteristics

No	Respondent Characteristics	Amount	Percentage
1	**Based on Gender**		
	Male	31	31%
	Female	69	69%
	Total	**100**	**100%**
2	**Based on Age**		
	<20 years old	0	0
	20-30 years old	98	98%
	31-40 years old	2	2%
	41-50 years old	0	0
	>50 years old	0	0
	Total	**100**	**100%**
3	**Based on Latest Education**		
	Senior High School	2	2%
	Diploma	5	5%
	Bachelor	83	83%
	Master	10	10%
	Others	0	0
	Total	**100**	**100%**
4	**Based on the type of Fintech Lending used**		
	Kredivo	6	6%
	Investree	4	4%
	Indodana	3	3%
	Home Credit	10	10%
	Shopeepay Later	57	57%
	Others	20	20%
	Total	**100**	**100%**

Source: Primary Data, 2022

Table 2 shows that most of the respondents are female. According to Sapitri and Suprapti (2014), women are more incentivised to purchase than men. Women will use fintech lending services on various e-commerce to meet their needs. Based on the age of the respondents, the millennial generation is dominated by 98%. The millennial generation is at its most productive age to make the best contribution to the economy and is an early adapter that quickly follows the latest technological developments. Data from the Financial Services Authority (2020) shows that the millennial generation is the highest fintech lending user of the other generations. Based on the latest education, respondents are dominated by bachelor's degrees, which shows that respondents have a good knowledge and understanding of technology, especially financial technology. Based on the type of fintech lending used, most respondents use shopee pay later 57%. Shopee pay pays laters first launched on March 6, 2019, by cooperating with a peer-to-peer lending company named PT. Lentera Dana Nusantara (LDN). The pay later feature has been increasingly in demand since the Covid-19 pandemic. From the DailySocial survey results, consumers used Shopee Pay Later services throughout 2021; the percentage reached 78.4%.

4.1. The results of the Outer Model

The measurement model of the outer model is carried out by testing convergent validity, discriminant validity, and composite reliability.

4.1.1. Convergent Validity

The indicator is considered reliable if it has a correlation value above 0.70. Hair et al. (2014) stated that the value was 0.50 or more was considered to have strong enough validity to explain latent constructs. The results of the concurrent validity test can be seen in Table 3 below.

Table 3. The results of Convergent Validity

Variable	Indicator	Outer Loading
Information Quality (X_1)	$X_{1.1}$	0.788
	$X_{1.2}$	0.925
	$X_{1.3}$	0.949
	$X_{1.4}$	0.903
	$X_{1.5}$	0.740
System Quality (X_2)	$X_{2.1}$	0.891
	$X_{2.2}$	0.839
	$X_{2.3}$	0.842
	$X_{2.4}$	0.865
	$X_{2.5}$	0.883
Service Quality (X_3)	$X_{3.1}$	0.879
	$X_{3.2}$	0.891
	$X_{3.3}$	0.792
Use (X_4)	$X_{4.1}$	0.899
	$X_{4.2}$	0.874
	$X_{4.3}$	0.878
User Satisfaction (X_5)	$X_{5.1}$	0.898
	$X_{5.2}$	0.900
	$X_{5.3}$	0.865
Net Benefit (Y)	$Y_{1.1}$	0.892
	$Y_{1.2}$	0.894
	$Y_{1.3}$	0.953

Source: Primary Data Processed, 2022

The results of the convergent validity test show that all the outer loading variable indicator values have a value greater than 0.50, so all indicators have met the convergent validity requirements and are declared valid.

Table 4. The Results of the Fornell-Larcker Criterion

	User satisfaction	Information Quality	Service Quality	System Quality	Net Benefit	Use
User Satisfaction	0.888					
Information Quality	0.209	0.865				
Service Quality	0.655	0.094	0.855			
System Quality	0.754	0.111	0.617	0.864		
Net Benefit	0.680	0.200	0.444	0.614	0.913	
Use	0.811	0.252	0.716	0.760	0.557	0884

Source: Primary Data Processed, 2022

Table 3. and Table 4 show that the value of the cross loading and Fornell-larcker criterion of each indicator of the relevant variable is greater than the cross loading and Fornell-larcker criterion of other variables, which is greater than 0.50. It can be stated that indicators in this study were declared valid.

Another method to assess discriminant validity is by looking at the Average Variance Extracted (AVE) value, which is required for a good model if the AVE value of each construct is greater than 0.50. The results of the AVE test can be seen in Figure 2 below.

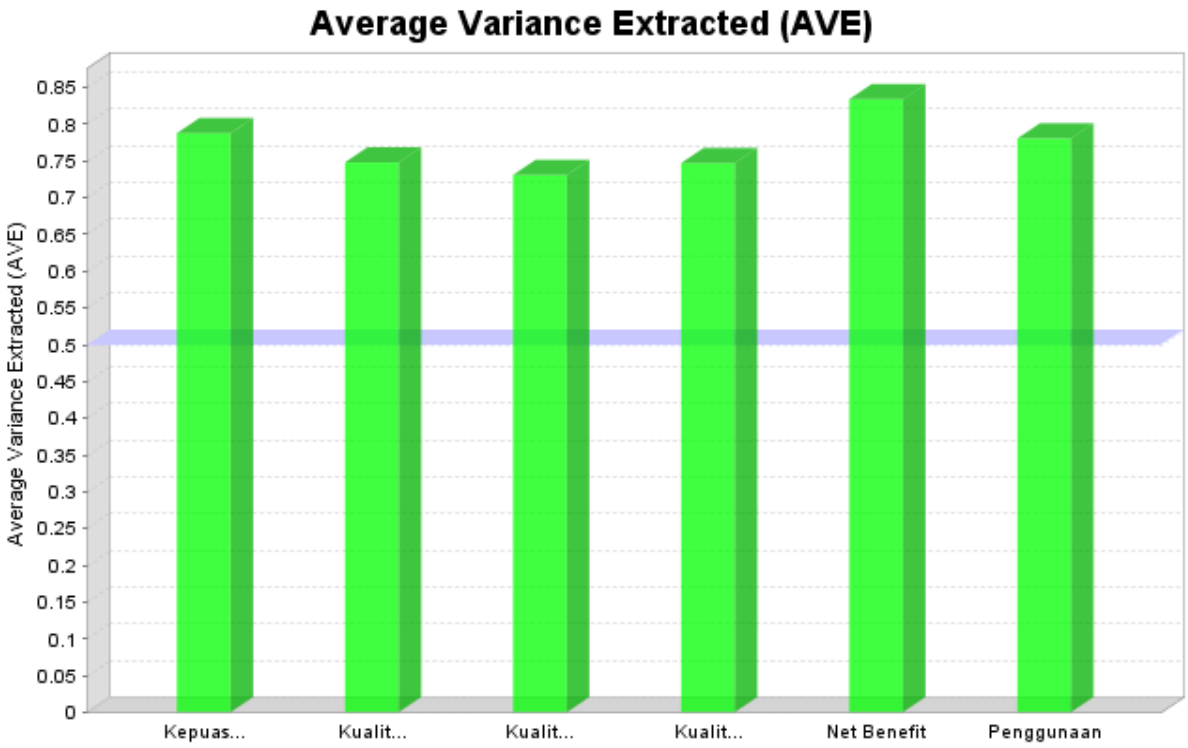

Fig. 2 Average Variance Extracted

Source: Primary Data Processed, 2022

Based on Figure 2., the AVE output results show that the AVE value of each variable is greater than 0.50, which indicates that the validity test by calculating the AVE value is declared valid.

4.1.2. Composite Reliability

Composite reliability is an index that shows the extent to which a measuring instrument is trusted to measure the same symptoms, and the results are relatively consistent (reliable). An indicator is declared reliable if the composite reliability and Cronbach's alpha values are 0.6 to 0.7 or more (Sarstedt et al., 2017).

Table 5. The Results of Composite Reliability Measurement

	Cronbach's Alpha	Composite Reliability
User Satisfaction	0.865	0.918
Information Quality	0.915	0.936
Service Quality	0.815	0.891
System Quality	0.915	0.937
Net Benefit	0.900	0.938
Use	0.860	0.914

Source: Primary Data Processed, 2022

Table 5. shows the value of Cronbach's alpha and the value of composite reliability in this study is greater than 0.6, meaning that all indicators used in this study are reliable.

4.2. The Results of the Inner Model

The inner model test is done by looking at the R-square value, the goodness of fit model test. R-square measures how well the observed values generated by the model and the estimated parameters are. In assessing the structural model with PLS structural, it can be seen from the Q-square value for each endogenous latent variable as predictive power and structural model.

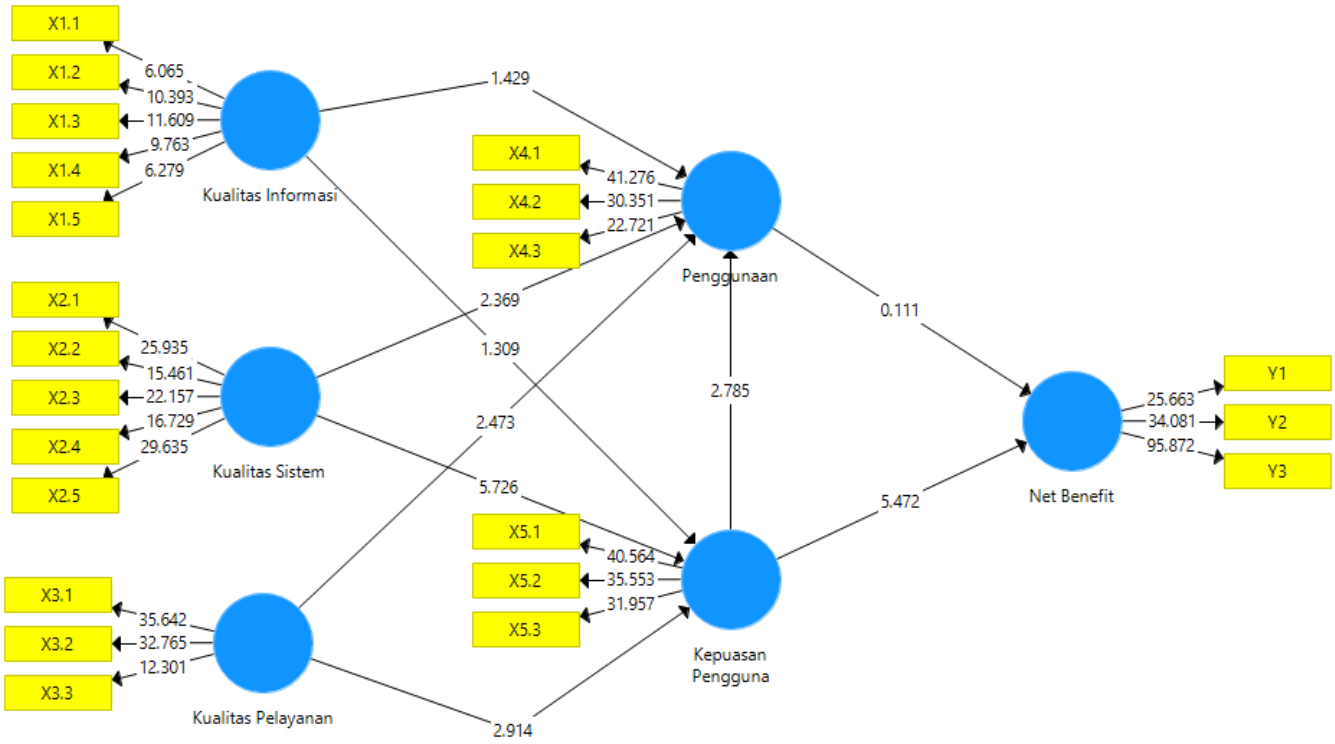

Fig. 3 Structural Model

Source: Primary Data Processed, 2022

4.2.1. The Results of R Square

The R-square value is used to determine how much (percent) the influence of exogenous variables on endogenous variables, the range of R-square values is 0-1; if the R-square value is close to zero, the weaker the influence of exogenous variables on endogenous variables, on the contrary, if it is close to one, the stronger the influence of exogenous variables on endogenous variables.

Table 6. The Results of R-Square Measurement

	R Square	***R Square Adjusted***
User Satisfaction	0.641	0.629
Net Benefit	0.462	0.451
Use	0.759	0.749

Source: Primary Data Processed, 2022

Table 6. shows the R-square value for the user satisfaction variable is 0.641, meaning that this research model is moderate, or 64.1 percent of the variation in fintech lending user satisfaction in Denpasar City is influenced by information, system quality, and service quality. In comparison, the remaining 35.9 percent is influenced by other factors not included in the model. The R-square value for the net benefit variable is 0.462, which means that this research model is weak, or 46.2 percent of the variation in the net benefit of fintech lending in Denpasar City is influenced by usage and user satisfaction. The remaining 58.3 percent is influenced by other factors, not in the model. While the R-square value for the user variable is 0.759, this research model is strong, or 75.9 percent of the variation in the use of Fintech Lending in Denpasar City is influenced by information quality and system quality and service quality, and user satisfaction. In comparison, 24.1 percent of the rest is influenced by other factors not included in the model.

4.2.2. Predictive Relevance (Q2)

The inner model test is done by looking at the Q-square value, the goodness of fit model test. If the Q-square value is greater than zero (0) indicates that the model has predictive relevance, while the Q-square value is less than zero, it shows that the model lacks predictive relevance. However, if the calculation results show that the Q-square value is more than zero, then the model can be said to have relevant predictive values. The calculation of the Q-square value can be seen as follows:

Q2 = 1-[(1-R2) (1-R2) (1-R2)]
Q2 = 1-[(1-0,641) (1-0,462) (1-0,759)]
Q2 = 1-(0,359) (0,538) (0,241)
Q2 = 1- 0,0465
Q2 = 0,953

The value of Q2 is in the range of 0 < Q2 < 1, where the closer to 1 means the better the model. Based on the results of these calculations, the Q2 value obtained is 0.95, so it can be concluded that the model has a good predictive relevance. Thus, it can be explained that 95 percent of the net benefit variables are influenced by information quality, system quality, service quality, usage, and user satisfaction, and other factors outside the research model influence the remaining 5 percent.

4.3. The Results of Hypothesis (Bootstrapping)

Hypothesis testing aims to determine how much influence the independent variable has on the dependent variable. The significance value can be obtained using the bootstrapping technique developed by Geisser and Stone. The statistical test used to test the hypothesis is the t-test. The alternative hypothesis is accepted if the p-value < 5%.

Table 7. The Results of Hypothesis Measurement

	Original Sample (O)	Sample Mean (M)	Standard Deviation(STDEV)	T Statistics (|O/STDEV|)	P Values
User Satisfaction-> Net Benefit	0.666	0.665	0.122	5.472	0.000
User Satisfaction-> Use	0.401	0.407	0.144	2.785	0.006
Information Quality -> User Satisfaction	0.119	0.121	0.091	1.309	0.191
Information Quality -> Use	0.112	0.106	0.078	1.429	0.154
Service Quality -> User Satisfaction	0.301	0.316	0.103	2.914	0.004
Service Quality-> Use	0.271	0.254	0.110	2.473	0.014
System Quality -> User Satisfaction	0.556	0.540	0.097	5.726	0.000
System Quality -> Use	0.278	0.281	0.117	2.369	0.018
Use -> Net Benefit	0.016	0.014	0.145	0.111	0.912

Source: Primary Data Processed, 2022

The results showed that six hypotheses were accepted, and three hypotheses were rejected. The discussion of the results for each hypothesis is as follows.

4.3.1. The Effect of Information Quality on the Use of Fintech Lending

Based on the hypothesis test, it shows that the p-value is 0.154 higher than 0.05. These results indicate that H1 is rejected and H0 is accepted. It means that the information quality does not affect the use of fintech lending.

Changes in the output of information quality will not result in changes in output consumption. The results of this study support the research conducted by Khayun, Rachtam, and Firpo (2012). Research by Khayun, Rachtam, and Firpo (2012) states that information quality has the least effect (i.e., there is no statistically significant effect) on usage. This is in line with the findings of the studies of McGill, Hobbs, and Klobas (2003) and Iivari (2005), which focused on testing the DeLone and McLean model and found that information quality had no significant effect on use. Users may perceive that the perceived information quality is not a factor that directly affects the use of the system. The results of this study are also in line with Susanty's (2013), which shows that information quality does not positively affect system use.

Seddon (1997) defines that information quality focuses on the relevance, timeliness, and accuracy of the information generated by the system. Not all information systems can produce information for decision-making, such as word processors, so information quality is not a measure that can be applied to all systems. It is in line with the results of research where fintech lending is not a system that functions to produce information in decision making like an accounting information system but is only used for the need to borrow money so that the factors that influence fintech lending users are the quality of the system and the quality of the system's services.

4.3.2. The Effect of Information Quality on Fintech Lending User Satisfaction

The hypothesis test shows that the p-value is 0.191 higher than 0.05. These results indicate that H2 is rejected and H0 is accepted. This means that the information quality does not affect user satisfaction.

Seddon (1997) defines that information quality focuses on the relevance, timeliness, and accuracy of the information produced by the system. Not all information systems can produce information for decision-making, such as word processors, so the quality of information is not a measure that can be applied to all systems. Fintech lending is not a system that provides output from information used for user decision-making. Therefore, the quality of information does not affect the satisfaction of fintech lending users.

The results of other studies consider the information quality to have no significant effect on user satisfaction (Koo et al., 2013). The results of the research by Prameswara and Wirasedana (2018) show that the quality of information does not have a positive and significant effect on user satisfaction. This finding is supported by research conducted by Susanty (2013). Research by Chiu et al. (2016) shows that information quality does not have a significant positive effect on system user satisfaction. It shows that the information's accuracy and comprehensiveness do not positively affect the use or user satisfaction. The results of this study indicate that users do not perceive the information quality as a factor affecting their intention to use the system or their satisfaction in using it.

4.3.3. The Effect of System Quality on the Use of Fintech Lending

Based on the hypothesis test, it shows that the p-value to test the effect of system quality on usage is 0.018, which is lower than 0.05. These results indicate that H3 is accepted and H0 is rejected. This means that the system quality has a positive and significant effect on usage.

The results of this study align with the theory of planned behavior, especially behavioral beliefs, which describe the extent to which individual beliefs about the availability of infrastructure and technical support for a system in providing good results for its users. A high-quality system will provide a more comfortable, safe, and fast response to increasing usage (Rana et al., 2015). The results of previous studies showed that there was a positive relationship between system quality and system use (Tam and Oliveira, 2016); (Alzahrani et al., 2017); (Veeramootoo et al., 2018); (Pramanita and Rasmini, 2020); (Masunga et al., 2020). The results of this study support the information system success model developed by DeLone and McLean (2003). They found that system quality is one indicator to measure the success of information systems.

4.3.4. The Effect of System Quality on Fintech Lending User Satisfaction

Based on the hypothesis test, it shows that the p-value to test the effect of system quality on user satisfaction is 0.000, which is lower than 0.05. These results show that H4 is accepted and H0 is rejected. This means that the system quality has a positive and significant effect on user satisfaction.

This study's results align with the theory of planned behavior, especially the behavioral belief, which explains that individuals have confidence in using a system because it can help them complete work faster with better results. System quality plays an important role in achieving system success related to meeting user needs and influencing their satisfaction (Widyadinata and Toly, 2014). Several studies have found that system quality has a positive effect on user satisfaction (Chiu et al., 2016), (Hambali, 2020), (Veeramootoo et al., 2018); and (Masunga et al., 2020). The results of this study support the information system success model developed by DeLone and McLean (2003). They found that system quality is one indicator to measure the success of information systems and affects user satisfaction.

4.3.5. The Effect of Service Quality on the Use of Fintech Lending

Based on the hypothesis test, it shows that the p-value to test the effect of service quality on usage is 0.014, which is lower than 0.05. These results indicate that H5 is accepted and H0 is rejected. This means that service quality has a positive and significant effect on usage.

The results of this study align with the behavioral belief in the theory of planned behavior which explains that individuals will use an information system if they believe there is a positive benefit from using the system. Service quality is useful for evaluating the success of various systems (Shahzad et al., 2021). High service quality can increase usage and meet user performance and expectations (Weerakkody et al., 2013). Several studies have found that service quality has a positive effect on system use (Chiu et al., 2016), (Tam and Oliveira, 2016), (Alzahrani et al., 2017) and (Rahi and Ghani, 2019). The results of this study are consistent with the research model DeLone and McLean (2003), which states that service quality significantly impacts the use of information systems.

4.3.6. The Effect of Service Quality on Fintech Lending User Satisfaction

The hypothesis test shows that the p-value to test the effect of service quality on user satisfaction is 0.004, which is lower than 0.05. These results indicate that H6 is accepted and H0 is rejected. It indicates that service quality has a positive and significant effect on user satisfaction.

The results of this study align with the behavioral belief in the theory of planned behavior which explains that attitudes will affect individual behavior through a planned decision-making process because it has a positive effect on them. The good quality of service provided by system developers will refer to user satisfaction, so they intend to use the system continuously and recommend it to others. The success of system services leads to increased user satisfaction (Trihandayani et al., 2018). Several studies have found that service quality has a positive effect on user satisfaction (Nurjaya, 2017), (Shim and Jo, 2020), (Farizi et

al., 2020), (Pramanita and Rasmini, 2020) and (Hambali, 2020). The results of this study are consistent with the research model DeLone and McLean (2003), which states that service quality significantly impacts information system user satisfaction.

4.3.7. The Effect of Fintech Lending User Satisfaction on the Use of Fintech Lending

The hypothesis test shows that the p-value to test the effect of usage on user satisfaction is 0.006, which is lower than 0.05. These results indicate that H7 is accepted and H0 is rejected. This data shows that user satisfaction positively and significantly affects using fintech lending.

The results of this study support the theory of planned behavior, especially in behavioral belief, which refers to individual beliefs about the outcome of behavior. User satisfaction is the response of users after using the system. If the individual gets good results, it will trigger repeated use. This will also influence the individual to suggest using the system in his social environment because it is based on his personal experience by obtaining satisfactory results from the system. Based on the DeLone & McLean (2003) model, usage and user satisfaction are closely related. Usage should precede user satisfaction in a process sense, but a positive experience with use will result in greater user satisfaction in a causal sense.

4.3.8. The Effect of the Use of Fintech Lending on Net Benefit

Based on the hypothesis test, it shows that the p-value to test the effect of the use on net benefits is 0.912, which is higher than 0.05. These results indicate that H8 is rejected and H0 is accepted. These data indicate that the user does not affect the net benefit.

Research by Khayun, Rachtam, and Firpo (2012) states that the user does not affect the net benefit. Usage will have a small effect on the net benefit. This is in line with research conducted by Wu and Wang (2006), who found that the use of the system will occur when users feel that the net benefit has a higher value than the cost of use, both in terms of expenditure and effort. However, the user will be low if the user perceives that one will not benefit from using the system or that such a system will not help the job. If users conclude that the benefits will outweigh the cost or effort of using the system, they will use it effectively, but if it cannot benefit and help them, it will not contribute to user performance.

Seddon (1997) identified several problems with DeLone and McLean's model as a model of information system success; he suggested that rather than a single sequence of relationships, there are two related sub-systems: one explaining the use and the other explaining impact. He argues that usage is not an indicator of the success of an information system but user satisfaction because it is associated with impact. This is in line with the research results where the user does not affect the net benefit. Usage is related to how often the system is used, so it is expected to impact the users' benefits. Usage does not significantly affect net benefits because users do not use the system in their daily life.

4.3.9. The Effect of Fintech Lending User Satisfaction on Net Benefit

Based on the hypothesis test, it shows that the p-value to test the effect of user satisfaction on net benefits is 0.000, which is lower than 0.05. These results indicate that H9 is accepted and H0 is rejected. These data indicate that user satisfaction influences net benefits.

This study's results align with the behavioral belief in the theory of planned behavior, referring to individuals who are satisfied with the results of using fintech lending because they believe there will be good results from using the system. If user satisfaction is high, the system provides high benefits to individuals. The satisfaction felt by the user indicates that the information system has succeeded in meeting the aspirations or needs of the user.

Research by Silalahi and Pramedia (2018) states that user satisfaction has a positive and significant effect on net benefits. The results of this study support the information success model developed by (DeLone and McLean, 2003). Similar results were also shown in research (Ratnaningrum & Muhammad, 2015), (Salim, 2014) and Bari (2011) stated that there was a significant relationship between user satisfaction and net benefits.

5. Conclusion and Recommendations

The results of this study provide empirical evidence regarding the application of the DeLone and McLean model to fintech lending users. The model is supported by most of the data; from nine hypotheses tested, six hypotheses are accepted, and three hypotheses are rejected. The DeLone and McLean information system success model is not yet fully validated.

Seddon (1997) identified several problems with DeLone and McLean's model as a model of information system success. He suggested that rather than a single sequence of relationships, there are two related sub-systems: one explaining the use and the other explaining impact. He argues that usage is not an indicator of the success of an information system but user satisfaction because it is associated with impact. Seddon (1997) also defines that information quality focuses on the relevance, timeliness, and accuracy of the information generated by the system. Not all information systems can produce information for decision-making, such as word processors, so the quality of information is not a measure that can be applied to all

systems. This is in line with the results of research where fintech lending is not a system that functions to produce information in decision making like an accounting information system but is only used for the need to borrow money so that the factors that influence fintech lending users are the system quality and the service quality.

Suggestions that can be given to fintech lending service providers are based on the results of this study, and fintech lending service providers should focus more on improving the system quality and service quality. This is because the system and service quality significantly affect the use and user satisfaction. Based on respondents' answers, the quality of the system can be improved by implementing user-friendly applications that are easy to use and uncomplicated, have good access that can be used anytime with fast access, and what users pay most attention to are applications that are not vulnerable to viruses, illegal access (hacks), as well as errors. The service quality that can be improved is fast and agile service, as well as service that prioritizes concern for user questions or complaints.

The results showed that respondents were dominated by female fintech lending users, reaching 69%. Further researchers are advised to take only a sample of female fintech lending users. This is due to the tendency of women to be more impulsive and consumptive in purchasing, so women will use fintech lending services on various e-commerce platforms to meet their various needs.

The results of this study indicate that 98% of respondents are in the age range of 20 to 30 years. These data indicate that most of the respondents in this study came from the millennial generation. Millennials are at their most productive age to make the best contribution to the economy. They are early adopters who quickly follow the latest technological developments and are generally used to using the latest technology. Further researchers are advised to take millennial generation respondents so that they can reflect the age that is already proficient in using smartphones and proficient in using technology.

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