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The Effect of Information Technology and Service Quality on Customer Satisfaction at XYZ Company

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Abstract : *This study aims to investigate the effect of information technology and service quality on customer satisfaction at PT. XYZ which is engaged in online loans. The sample used in this study was 63 respondents who were obtained using the Slovin formula. The research data is primary data by distributing questionnaires to respondents whose data is tested using multiple regression analysis techniques. The results showed that both individually and simultaneously, information technology and service quality significantly affected customer satisfaction. This indicates that the better the quality of information technology and services will encourage increased customer satisfaction. Thus, companies must prioritize more superior technology and service quality to increase customer satisfaction, which will increase customer loyalty.*

Keywords: Financing, Information Technology, Service Quality, Customer Satisfaction

1 INTRODUCTION

The development of the digital era is currently marked by the rapid advancement of information technology which makes the business world experience very tight competition. High-growth businesses, especially those in the service sector. One of the businesses that take advantage of advances in information technology is the loan business. This business has promising prospects considering the large number of customers who need loans and have not been served by financial institutions. By combining technological advances with the large potential of customers who need loans, the online loan business will encourage Indonesia's economic growth through the use of loans for productive economic activities. If it is maximally developed, the technology-based credit distribution industry nationally can play more roles and is needed by the community (Kadir, 2011).

An increase in the number of online-based credit applications based on data from the Financial Services Authority (OJK) for the last 3 years, namely from 2017 to 2019, each debtor was 259,635, 4,359,448 and 18,569,123. This increase is greatly influenced by information technology which is developing very rapidly. The following is data in the form of a graph of the increase in credit applications for 3 years:

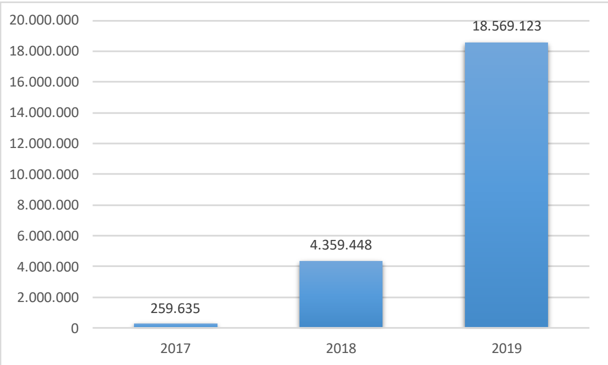

Fig 1. Number of credit applications

The purpose of developing information technology at PT. XYZ is so that every prospective customer gets convenience in making transactions, both in urban and rural areas regardless of time and place. Realizing the expectations of these customers, PT. XYZ needs a system that is real time, online and flexible. Therefore, PT. XYZ then chooses Information Technology-Based Loans. The specialty of the Financial Technology (Fintech) system is considered to have a very large influence on the financing process to the community (Kadir, 2011). Information Technology-Based Financing has led to the birth of various new modes that are more practical for the public in accessing financial products and services. The existence of this industry awakens the status quo and changes the way traditional financial institutions work. Data from the Indonesian Internet Service Providers Association (APJII) in 2017 states that 54.68% or around 143 million Indonesians have been connected to the internet and will continue to experience a significant increase in the next few years. The majority of internet users (72.41%) are urban communities who use internet facilities not only for communication needs but also for buying and selling online, ordering transportation and lodging, delivery of goods, purchasing ready-made food, even donations, all of which can be done online.

This is a huge opportunity for the development of the financial industry in Indonesia. Information technology in financial services can be carried out via the internet which can influence customers in conducting transactions which is determined by the value of "convenience" compared to other aspects of the service, such as human interaction, and its relative contribution to positive results. Opening up opportunities for social media marketing is one way of developing online marketing. The opportunity increases with the rise of smartphone users in Indonesia. With the increasingly rapid use of social media marketing, it will add insight to the realm of this research, especially those related to the field of credit. The success of a lending company in a competition is very dependent on the way they provide services to customers. Competition in a finance company includes providing low interest, human resource services so that the technology used, especially information technology in service aspects. However, the main factor in obtaining and retaining customers is the quality of service so that if the finance company does not pay attention to service aspects, it can result in the customer moving to another place that is considered more able to meet the wishes or needs of customers in obtaining loans. This of course will be detrimental to the financing company concerned (Atmaja, 2018).

Service quality is how far the difference between reality and consumer expectations for the services provided. In the financial services industry, competitive advantage is realized through various types of service quality which include facilities that can provide convenience for customers in obtaining loans quickly, such as adequate applications and easy implementation. Thus, customer satisfaction is a response from customers to the discrepancy between the previous level of importance and the actual performance felt after use. Customer perceived service quality and satisfaction are related to customer retention and profitability, although the relationship between these constructs has not been fully established. Therefore, service quality can be defined as an effort to fulfil consumer needs and desires as well as delivery in balancing consumer expectations (Tjiptono, 2015). In line with the increasing number of players, the services offered by information technology-based finance companies are also increasingly diverse, ranging from financing/loans, investment in the capital market to insurance packaged more attractively. Knowledge, demands for comfort level and inclusion of public finances are also increasing. However, as a logical consequence of this more open access and more options is the increased security risk in transactions.

Research conducted by (Anggraeni 2016, Rasyid 2017 and Nathania 2020) found that technology-based services have a positive and significant effect on customer satisfaction. This study will confirm these previous studies. In addition, this research is different from previous research because it adds a service quality variable other than technology-based services that affect customer satisfaction. The object of this research is the financial technology (Fintech) company, namely PT. XYZ which is engaged in online loans. Thus, the results of this study are expected to provide valuable input for online loan companies regarding the significance of the need for developing information technology services and the quality of services needed to satisfy customer needs. If satisfaction increases, it is believed that it will increase customer loyalty to companies engaged in online marketing (Puspita and Sugiarto, 2016).

2 LITERATURE REVIEW

Credits

The word credit comes from the Latin credere which means trust. The owner of money or goods (creditor) trusts the borrower (debtor) to use the money or goods for a certain time. This loan is also accompanied by the belief that the debtor can return the money or goods lent. Thus, credit is the provision of the use of money or goods to another person within a certain period of time with collateral or without collateral, with the provision of interest services or without interest.

Information Technology-Based Lending and Borrowing Services

Information technology-based lending and borrowing services according to the OJK (2016) are the provision of financial services to bring together Information Technology-Based Borrowing and Borrowing (2) Loan Recipients, are people and/or legal entities that have debts due to the Technology-Based Borrowing and Borrowing Service agreement Information, and (3) Lenders, namely individuals, legal entities, and/or business entities that have receivables due to an Information Technology-Based Lending and Borrowing Service agreement. According to Galloway (2009), Peer to Peer (P2P) Lending service providers will match borrowers with lenders. The loan recipient will provide information about himself, both personal and financial. Based on the data provided by the prospective customer, the lender will decide whether to provide a loan or not. Each loan will be underwritten by several lenders, each of whom will contribute to a portion of the loan until the loan is fully funded. Once fully funded, the loan will be returned based on its origin and the lender will get a proportionate share of the principal and interest payments until the loan maturity

Information Technology

Information technology is a technology used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely information that is relevant, accurate and timely, which is used for personal, business and governance and is strategic information for decision making (Kadir and Tri Wahyuni, 2013:122). Implicitly and explicitly information technology is not only in the form of computer technology, but also includes communication technology. In other words, what is called information technology is a combination of computer technology and telecommunications technology.

The dimensions of information technology are according to Jacob (2012: 34):

1. Ease is being able to make transactions anywhere and anytime. Financial transactions can be done in just a matter of minutes.
2. Risk is not always a bad thing. The fact that the risk of bias contains in it a very large opportunity for those who manage it well.
3. Trust is the trust of information technology users in deciding the acceptance of information technology with a belief that information technology users

Service Quality

Zethmal and Bitner (2013) define service as all economic activities whose results are not in the form of physical products or construction, which are generally produced and consumed simultaneously and provide added value. There are four components that can encourage consumer satisfaction (Tjiptono 2015: 34), namely:

1. Product quality is product quality involving five elements, namely performance, reliability, conformance, durability and consistency. Consumers will be satisfied if the evaluation results show that the services they use are of high quality.
2. Quality of service is that customers will feel satisfied if good service is as expected. Dimensions of service quality according to the SerQual concept include reliability, responsiveness, assurance, empathy and tangible. In many ways, service quality has a stronger differentiation power than product quality.
3. Emotional factors are consumer satisfaction obtained when using a product related to lifestyle. Customer satisfaction is based on pride, self-confidence, a symbol of success, and so on.
4. The ease of this component is related to the cost of obtaining a product or service. Customers will be more satisfied if it is relatively easy, comfortable and efficient to get a product or service. In the context of technology-based financing, customer satisfaction is a goal in the world of financial services. PT. XYZ sees customer satisfaction by providing services and products tailored to their needs, and making it easy to obtain their services

Customer satisfaction

A satisfied customer is a customer who feels he gets value from the manufacturer or service provider. This value can come from products, services, systems or something that is emotional (Tjiptono 2015:17). According to Tjiptono (2015:29) the dimensions of satisfaction consist of:

1. Conformity of expectations is a match between product performance expected by consumers and those felt by consumers.
2. Revisit interest is the customer's willingness to visit again or make a repeat purchase of the expected product.
3. Willingness to recommend is the willingness of customers to recommend products that have been felt to friends or family

Framework

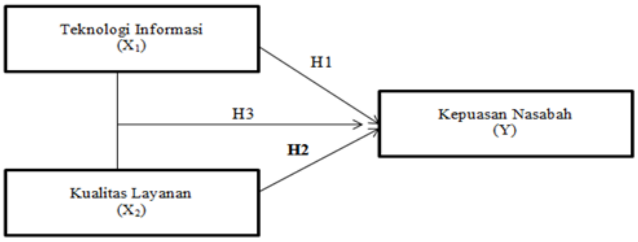

Figure 2. Research Framework

Hypothesis:

H1: IT has a positive effect on Customer Satisfaction
H2: Service Quality has a positive effect on Customer Satisfaction
H3: IT and Service Quality has a positive effect on Customer Satisfaction
H4: Business Risk has a positive effect on Capital Structure

3 RESEARCH METHOD

This study uses a questionnaire data collection technique (questionnaire). According to Sugiyono (2010: 199) questionnaire is a data collection technique which is done by giving a set of written questions to respondents to answer. Respondents are people who will be studied (sample). Questionnaires in the form of questions were distributed to respondents in accordance with the problems studied to obtain data in the form of respondents' statements. The mechanism of data collection in this study was carried out by distributing online questionnaires (via Google Docs) to the respondents. The population in this study are customers whose credit applications use a website application that is approved by PT. XYZ with loan value above Rp. 50,000,000 for the last 3 months, namely March 2020, totalling 75 customers. The research sample from this population uses the Slovin formula (Umar, 2011) using an error rate of 5% as follows

$$n = \frac{N}{1 + Ne^2}$$

n = sample size

N = population size

e = the margin of error to be decided by the researcher

4 FINDINGS AND DISCUSSION

Table 1. Statistical Analysis Table

	N	Range	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
IT Based finance	63	21.00	25.00	46.00	37.9683	.69890	5.54736
Service Quality	63	17.00	29.00	46.00	39.4603	.55604	4.41342
Customer Satisfaction	63	17.00	29.00	46.00	39.1746	.57403	4.55624
Valid N (listwise)	63						

The results of data from descriptive statistical processing of information technology-based financing variables (X1) have a mean value of 37.96, standard error of 0.698, then, standard deviation of 5.547, range 21 with a minimum value of 25 and a maximum of 46. Data results from descriptive statistical processing of the Quality variable Service (X2) has a mean value of 39.46, standard error is 0.556, then, standard deviation is 4.413, range 17 with a minimum value of 29 and a maximum of 46. And the results of data from descriptive statistical processing of the Customer Satisfaction variable (Y) has a mean value of 39, 17,.

Validity Test

The validity test was carried out on 63 respondents using software by statistical data SPSS ver 21. From table r, for df = number of cases – 2, or for this case df = 61 (63 - 2) and a significant level of 5% there is a figure of 0.248 in where r results for each item (variable) can be seen in the column corrected item – total correlation.

Table 2. The Validity of Information Technology-Based Financing test

Question	T value	r table	res
Question 1	0,464	0,248	Valid
Question 2	0,622	0,248	Valid
Question 3	0,424	0,248	Valid
Question 4	0,709	0,248	Valid
Question 5	0,775	0,248	Valid
Question 6	0,777	0,248	Valid
Question 7	0,666	0,248	Valid
Question 8	0,586	0,248	Valid
Question 9	0,599	0,248	Valid
Question 10	0,613	0,248	Valid

From the test results presented in the table above, it shows that all items of the questionnaire instrument for the Information Technology-Based Financing variable have a correlation that is greater than the r table value (0.248) and is significant, it can be concluded that all questions are valid.

Table 3. Service Quality Validity test

Question	T value	T table	Ket
Question 1	0,471	0,248	Valid
Question 2	0,551	0,248	Valid
Question 3	0,603	0,248	Valid
Question 4	0,549	0,248	Valid
Question 5	0,690	0,248	Valid
Question 6	0,565	0,248	Valid
Question 7	0,703	0,248	Valid
Question 8	0,659	0,248	Valid
Question 9	0,577	0,248	Valid
Question 10	0,429	0,248	Valid

From the test results presented in the table above, it shows that all items of the questionnaire instrument for the Service Quality variable have a correlation greater than the value of r table (0.248) and is significant, it can be concluded that all questions are valid.

Table 4. Customer Satisfaction Validity

Question	$r_{statistic}$	r_{table}	Ket
Question 1	0,495	0,248	Valid
Question 2	0,488	0,248	Valid
Question 3	0,547	0,248	Valid
Question 4	0,714	0,248	Valid
Question 5	0,605	0,248	Valid
Question 6	0,650	0,248	Valid
Question 7	0,654	0,248	Valid
Question 8	0,603	0,248	Valid
Question 9	0,670	0,248	Valid
Question 10	0,550	0,248	Valid

From the test results presented in the table above, it shows that all items of the questionnaire instrument for the Customer Satisfaction variable have a correlation greater than the value of r table (0.248) and is significant, it can be concluded that all questions are valid.

Reliability Test

Table 5. Information Technology-Based Financing Reliability Test
Reliability Statistics

Cronbach's Alpha	N of Items
.827	10

The results of reliability testing with alpha-cronbach's coefficients show that the Information Technology-Based Financing variable instrument has an alpha coefficient value of 0.827. This shows that the instrument is reliable and the data obtained can be used for further analysis because it shows a value above the predetermined standard of 0.60

Table 6. Service Quality Reliability Test

Cronbach's Alpha	N of Items
.781	10

The results of reliability testing with alpha-cronbach's coefficients show that the service quality variable instrument has an alpha coefficient value of 0.781. This shows that the instrument is reliable and the data obtained can be used for further analysis because it shows a value above the predetermined standard of 0.60.

Tabel 7. Customer Satisfaction Reliability Test

Cronbach's Alpha	N of Items
.801	10

The results of reliability testing with the alpha-cronbach's coefficient show that the instrument variable Customer Satisfaction has an alpha coefficient value of 0.801. This shows that the instrument is reliable and the data obtained can be used for further analysis because it shows a value above the predetermined standard of 0.60.

Table 8. Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	11.634	4.415		2.635	.011		
	(X1)	.317	.088	.385	3.581	.001	.855	1.170
	(X2)	.393	.111	.381	3.539	.001	.855	1.170

a. Dependent Variable: customer satisfaction

Based on table 9, the customer satisfaction equation can be entered into the multiple regression equation as follows:

$$\mathbf{Y = 11.634 + 0.317X1 + 0.393X2 + e}$$

T-Test

Information technology has a positive effect on customer satisfaction

For Information Technology-Based Financing, it is known that the t-count value is 3.581 with sig 0.001 < (α) 0.05 or with a significance level of less than 0.05 or 0.001 then H0 is successfully rejected, meaning that H1 is accepted, namely Information Technology has a significant effect on Customer Satisfaction. The regression coefficient for the variable X1 (Information Technology-Based Financing) is positive indicating a unidirectional relationship between X1 (Information Technology-Based Financing) and Y (Customer Satisfaction). The regression coefficient value of the X1 variable (Information Technology-Based Financing) of 0.317 means that for every one unit increase in Information Technology-Based Financing, it will cause an increase in Y (Customer Satisfaction) of 0.317.

Service quality has a positive effect on customer satisfaction

For Service Quality, it is known that the tcount is 3.539 with sig 0.001 < (α) 0.05 or with a significance level of more than 0.05 or 0.001 then H0 is successfully rejected, meaning H2 is accepted that Service Quality has a significant effect on Customer Satisfaction. The regression coefficient for the X2 (Service Quality) variable is positive indicating a unidirectional relationship between X2 (Service Quality) and Y (Customer Satisfaction), meaning that the higher the X2 (Service Quality) value, the Y (Customer Satisfaction) will increase. The regression coefficient value of the X2 variable (Service Quality) of 0.393 means that for every one unit increase in Service Quality will cause an increase in Y (Customer Satisfaction) of 0.393,

F Test

Table 9. ANOVA[b]

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	521.971	2	260.985	20.467	.000[a]
	Residual	765.109	60	12.752		
	Total	1287.079	62			

From the test results, it is known that the F value is equal to the value of Sisig <α (0.000 < 0.05), then H0 is rejected, which means that H3 is accepted, namely simultaneously there is a significant influence between the variables of Information Technology-Based Financing and Service Quality on Customer Satisfaction.

The Effect of Information Technology-Based Financing on Customers

This study proves that the first accepted hypothesis, namely Information Technology-Based Financing has a positive and significant effect on visitors. This is indicated by a positive line coefficient value and a significance value of less than 0.05, which means, the better Information Technology-Based Financing, the higher the number of visitors to PT. XYZ. This is in accordance with conditions in the field, namely this information system can accelerate and accelerate customer transaction activities. Therefore, if PT. XYZ wants to increase customers, so Information Technology-Based Financing must continue to be improved. The results in this study also support the research conducted by Pujiani (2016) which concluded that Information Technology-Based Financing partially has a positive and significant effect on customers. So the results of this study support the results of previous studies.

The Effect of Service Quality on Customers

This study proves that the second hypothesis is accepted, namely Service Quality has a positive and significant effect on visitors. This is indicated by the positive line coefficient value and the significance is less than 0.05, which means, the higher the Service Quality, the higher the visitors at PT. XYZ. Service quality in the field is very influential on customer satisfaction because good and maximum service quality will provide more satisfaction to consumers. Therefore, if PT. XYZ wants to increase customers, so the Quality of Service must continue to be improved. The results in this study also support the research conducted by Yuliana Angraeni in 2016. The research conducted in concluding that service quality partially has a positive and significant effect on visitor goals. So the results of this study support the results of previous studies.

The Effect of Information Technology-Based Financing and Service Quality Together (Simultaneous) on Customers

This study also proves that the third hypothesis is accepted, namely that there is a positive and significant influence on Information Technology-Based Financing and Service Quality together on visitors at PT. XYZ. This is indicated by a positive f test value and a significance value of less than 0.05. This means that the better Information Technology-Based Financing and Service Quality, the higher the visitors at PT. XYZ. The results in this study also support the research that has been carried out by Fauji (2016). The research concluded that Information Technology-Based Financing and Service Quality together have a positive and significant effect on visitors. So the results of this study support the results of previous studies

5 CONCLUSIONS

The purpose of this study was to examine the effect of information technology and service quality on consumer satisfaction at the company PT. XYZ. The results of the study show that both individually and jointly, the variables of information technology and service quality have a significant and positive effect on customer satisfaction with the weight of the influence of service quality being slightly higher than information technology. For information technology that needs to be continuously improved are services related to mobile application indicators. Meanwhile, customer service satisfaction is more focused on customer accuracy. If these two things are continuously improved in quality, then customer satisfaction will increase which leads to increased customer loyalty of PT. XYZ. The results of this study are beneficial for customers and companies. Customers will get the best service and the company will benefit from increasing customer loyalty. The results of the study prove that the use of information technology has a significant effect on customer satisfaction. In the current digital era, companies that are able to adapt to information technology will have a better competitive advantage. Likewise, referring to the results of this study, efforts to always prioritize the best service quality become a vehicle for companies to achieve increased customer satisfaction. Satisfied customers will be loyal and tend to refer to new customers. It is recognized that this research has a number of limitations. The first is related to data coverage. The data used is limited to PT XYZ customer data so that the research results cannot be applied to other online loan companies. The second limitation, this research only consists of 2 (two) independent variables, namely information technology-based financing and service quality. The results of the determination test show the number 40.6%, which means there are still other independent variables that have a large enough contribution to affect customer satisfaction. For future research, it is recommended to include other independent variables that affect consumer satisfaction such as interest rates, terms and conditions of loans, marketing methods, information disclosure and others.

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