

Effects of Internet Banking Service Quality on Customer Trust, Commitment and Satisfaction

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Abstract - The purpose of the present study was to comprehensively examine the effects of Internet banking service quality (IBSQ) on trust, satisfaction and commitment of the customers of Bank. Population was the customers of bank in Surabaya, Sidoarjo and Malang. Total sample was 150 respondents. Results indicated that IBSQ had a significant effect on customer commitment, either directly or indirectly, mediated by customer satisfaction. IBSQ had no significant effect on customer satisfaction. IBSQ had significant negative effect on customer commitment mediated by customer trust. Customer satisfaction was a mediator variable linking customer trust to customer commitment. The concept of a causal relationship between IBSQ and customer satisfaction and customer commitment was directly influenced by customer trust.

Keywords: Internet banking service quality, customer trust, customer satisfaction and customer commitment.

Introduction

Banking and financial service industries have been progressing rapidly. Advances in technology and financial deregulation policies result in an increasingly competitive climate in seizing and retaining bank customers. Technology constitutes one of the factors that influence the development of the banking sector in each country. Internet technology is the ideal medium to conduct banking activities due to potential cost savings and improvements in services delivered to the customers in order to achieve customer loyalty. Internet no longer functions only as a medium of information, but it can also perform banking transactions anytime and anywhere without spatial and temporal limitation. There are so many technology-based banking products that as if banking functions can be carried out anywhere; for example, banking transactions are currently facilitated by an ATM (automatic teller machine) card, credit cards, as well as phone banking and SMS banking services.

Internet banking represents the banking services that enable customers to obtain information, establish communications and conduct banking transactions via the Internet, and banks are not the only ones that deliver banking services via the internet. Internet banking consists of informational internet banking, communicative internet banking and transactional internet banking. Banking sector

is no different from other industries in which the Internet technology has started to become pervasive and even part of it has become *de facto* standards. Internet banking starts to emerge as one of the services demanded by a number of bank customers, in addition to ATM and phone banking services [1]. With internet banking services, customers can check their account balances, bills and the remaining credit card limits, as well as some activities in their accounts. Internet banking allows customers to access accounts and general information of a bank's products and services via a personal computer or other smart devices [2]. Internet banking represents e-services in which customers can learn directly between electronics and customer services and it is significantly influenced by customer performance [3]. Generally, these transactions include checking accounts, observing the list of transactions that use the accounts and transferring funds from one account to another account online [2]. In the development, Internet banking is considered as a strategy capable of quickly changing the ways a bank operates, delivers services and competes, especially when the competitive potential of traditional networks collapses rapidly [4]. In previous studies, the quality of online services has been associated with typical customer retention outcomes such as e-loyalty [5,6], customer satisfaction [7] and e-trust [5].

The use of the Internet in banking industry, originally only intended to improve transaction processes, has now become a means to win the competition. Bank customers who use Internet banking services tend to take advantage of the delivery channel services of Internet banking, phone banking and automatic teller machine (ATM) in a complementary manner [8]. Delivery channel produces the establishment of better relations with customers who can use either Internet banking, phone banking or ATM, but more likely they use them in combination [9]. Customer evaluation in the choice of an automated service and their desire to use a special option are directly influenced by the perception of the attributes associated with a particular option [8].

As one of services and also a competitive strategy, the ultimate goal of the use of Internet banking is to satisfy customers. No matter how sophisticated the Internet banking system is, when it ultimately only leads to dissatisfaction, poses a greater risk, as well as increasing customer insecurity, it does not provide added value to banks and customers. Thus, customer satisfaction with

using the internet banking facility needs to be evaluated and the determinants should be identified. Understanding of the determinants of customer satisfaction with internet banking will provide empirical information useful for bank management in order to improve the quality of customer services. Customer satisfaction is based on attempts to eliminate or at least narrow the gap between the expected services and the perceived services [10,11]. Parasuraman developed a model highlighting the main components of service quality [6]. Trust has been seen as highly important to create loyalty when there is a perceived high risk of purchase [12,5] and an association between e-trust and e-loyalty has been previously supported empirically [13]. As a result, loyalty has been considered a key factor to achieve a company's success and sustainability over time [14,15]. The purpose of the present study was to comprehensively examine the effects of IBSQ on trust, satisfaction and commitment of the customers of Bank in East Java. Theoretically, there is empirical justification that allegedly there is a strong and causal relationship between IBSQ and customer trust and satisfaction and commitment. Thus, empirical testing of this theory should be supported.

Studies of Internet banking in banking industry showed that (1) the quality of internet banking web sites had direct effects on customer satisfaction, (2) service quality had direct effects on customer satisfaction, (3) the quality of internet banking web sites had no direct effect on customer trust, (4) service quality had effects on customer trust, (5) the quality of internet banking web sites had direct effect on service quality, (6) satisfaction had effects on loyalty, (7) trust also had direct effects on loyalty [16]. IBSQ had a significant effect on internet banking customer satisfaction. However, dimensions of internet banking service quality are not entirely the same as those of conventional banking service quality [17,18,19]. IBSQ dimensions include online service quality, online information system quality and banking service product quality. In addition to IBSQ, another factor capable of affecting Internet banking customer satisfaction is trust [15].

Online customer service quality is the quality of service provided by internet banking. This variable is measured using items of: (1) Internet banking web sites are able to provide customers with valuable information; (2) Internet banking web sites allows customers to find information quickly; (3) Internet banking web sites are designed with very attractive look; (4) customers can instantly obtain what the bank has promised them with internet banking; (5) Internet banking capable of providing customers with assistance/solutions quickly; (6), I can obtain those services claimed by bank employees with internet banking; (7) Customers can obtain services appropriately with Internet banking; (8) Internet banking employees are charming; (9) Internet banking employees understand what their customers want; (10) Internet banking employees can provide customers with personal attention; (11) Internet banking employees work full time, so that they can provide customers with assistance at any time [20].

Online system information quality is the quality of a bank's information system in providing their services online. This variable is measured using items of: (1) The layout of information presentation in internet banking web sites makes it easy to understand; (2) Customers can easily log on to internet banking web sites; (3) It requires no demanding effort to use internet banking; (4) Transactions via internet banking is so easy to do; (5) The waiting time in searching for information with internet banking is so short; (6) online transactions by customers via internet banking can take place accurately; (7) Information presented in internet banking web sites is very accurate; (8) Every internet banking transaction is always handled accurately; (9) Customer personal information is not misused with internet banking; (10) I feel secure transacting via internet banking; (11) I feel that the risk of transacting via internet banking is very low; (12) Customer sensitive information is so protected with internet banking; (13) Customer information will be clearly well documented with internet banking; (14) Internet banking web sites are very attractive [20].

Banking service product quality is the quality of a bank in delivering its services online. This variable is measured using items of: (1) Internet banking is capable of providing features I want; (2) Internet banking is capable of providing benefits I want; (3) All the services I want are available in the menu provided by internet banking; (4) Internet banking offers many banking service packages; (5) Internet banking can provide customers with a lot of useful free services [20]. Customer trust is the belief arising within customers in matters relating to internet banking. This variable is measured using items of: (1) I strongly trust internet banking; (2) I really trust the bank where I became the customer; (3) I strongly trust internet banking transactions [21].

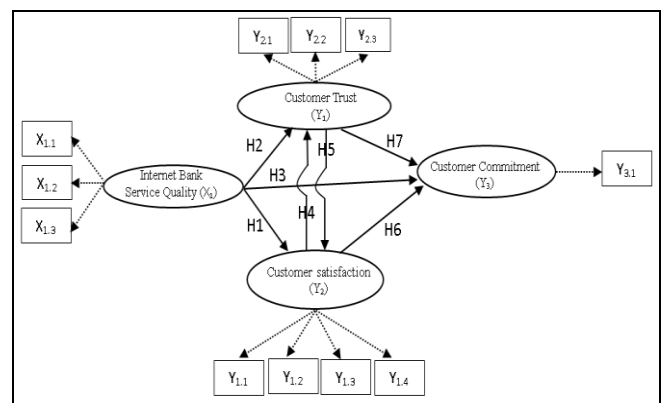


Fig 1. Conceptual Framework

Notes: $X_{1.1}$ = Online customer service quality; $X_{1.2}$ = Online system information quality; $X_{1.3}$ = Banking service product quality; $Y_{1.1}$ = services; $Y_{1.2}$ = transactions; $Y_{1.3}$ = products; $Y_{1.4}$ = credit card; $Y_{2.1}$ = trust internet banking; $Y_{2.2}$ = trust the bank; $Y_{2.3}$ = trust internet banking transactions; $Y_{3.1}$ = purchases intensely [20,21,22]

Customer satisfaction is customer satisfaction with internet banking services they perceived or received after comparison with the expected services. This variable is measured using items of: (1) I am satisfied with internet banking services I received; (2) I am satisfied with the Internet-based transactions I received; (3) I am satisfied with products/services offered via internet banking; (4) The use of credit cards can boost prestige [20]. Commitment is the desire to maintain a relationship in the long term. Commitment is the determinant of success of a long-term relationship between the consumer and the service provider [21]. Customer commitment plays a key role in the success of a long-term relationship between service providers and customers, which in turn will create customer loyalty. Commitment is closely related to customer loyalty, which is the intent on making purchases intensely [22]. The Conceptual Framework of this study is shown in Figure 1.

The hypotheses of this study are:

- H₁ : Internet banking service quality has a significant direct effect on customer satisfaction.
- H₂ : Internet banking service quality has a significant direct effect on customer trust.
- H₃ : Internet banking service quality has a significant direct effect on customer commitment.
- H₄ : Customer satisfaction has a significant direct effect on customer trust.
- H₅ : Customer trust has a significant direct effect on customer satisfaction.
- H₆ : Customer satisfaction has a significant direct effect on customer commitment.
- H₇ : Customer trust is has a significant direct effect on customer commitment.

Methods

This study used a quantitative approach. East Java was chosen due to the potential of the fast-growing banking business. The many banks opening their branches in East Java showed that the area is potential for banking business. In 2013, Bank Indonesia recorded that as many as 797 commercial banks was operating in East Java. The main instrument of this study was a questionnaire distributed to customers of bank who were using Internet banking facilities in East Java selected as the samples. The Likert scale was used with intervals of 1 to 5. Population of this study was customers of bank in East Java. Bank customers were selected only in the Main Branch Offices of Surabaya, Sidoarjo and Malang since in those offices there were more customers using Internet banking. Total sample was 150 respondents in accordance with the guidelines of sample size of 100–200 samples. The number of indicators used for all latent variables was multiplied by 5–10 [23]. Fifty respondents were selected for each main branch office. Samples (respondents) were selected by using the probability sampling technique with a systematic random sampling technique. With this technique, each customer had the same chance to be selected as a sample.

Structural equation modeling (SEM) analysis was used to test the hypotheses. Steps in SEM consist of (1) development of a model that has a strong theoretical justification. The model is converted to a structural equation model based on specifications stating the causal relationships among the variables; (2) selection of an input and estimation matrix, in which in the estimation of the model the sample size plays a quite important role; (3) Fulfillment of SEM assumptions, including (a) normality, which in this study was tested by observing coefficient values. Data is considered normally distributed if the coefficient value is 3; (b) outliers, which are detected by converting the values of study data into standard scores (z-scores). The z-score of ≥ 3.0 or ≤ -3 are categorized as outliers; (c) multicollinearity and singularity are detected by the determinant of the covariance matrix. The determinant of the covariance matrix has a very small value to provide an indication of multicollinearity or singularity problems. Furthermore, after SEM assumptions are met, the model fit is tested. In order to test the fit of the model developed in the structural equation model, indices of model fit are used. (4) Interpretation is performed when the model is quite good; otherwise, it is necessary to modify the model by adding or deleting link rows so that the values of chi-square will decrease with the index values [23].

Results and Discussion

A. Results of SEM Analysis

Results of SEM analysis are shown in Figure 2. Results of overall goodness-of-fit test of the final-stage model are shown in Table 1. Results showed that the *p*-value of chi-square test was 0.116, greater than $\alpha = 0.05$; thus, the model was said to be good and fit to use for testing of study hypotheses.

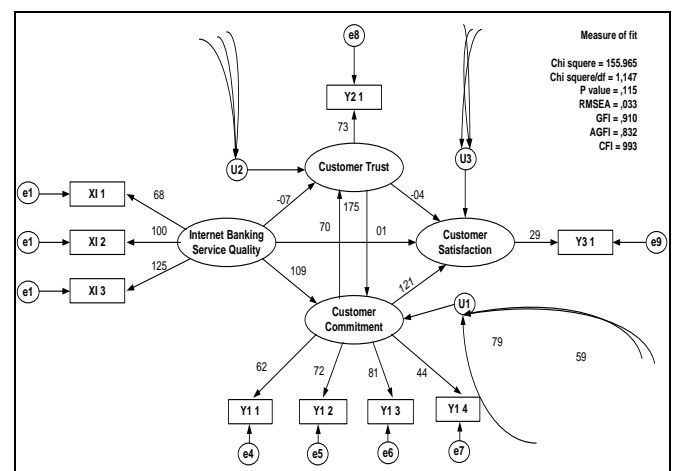


Fig.2. Results of SEM Analysis

TABLE.1. Overall goodness-of-fit test of the final-stage model

Goodness of fit	Result	Cut-off	Specifitation
<i>Chi-square</i>	155,963	Kecil	Fit
P	0,116	> 0,05	Fit
RMSEA	0,033	≤ 0,08	Fit
GFI	0,910	≥ 0,90	Fit
AGFI	0,832	≥ 0,90	Non Fit
<i>Chi-square</i> /df	1,147	≤ 2	Fit

Hypothesis of the study were tested by partially testing each path of direct effects from the results of structural equation modeling (SEM) analysis. Indirect effects are tested as a byproduct of direct effects. Hypothesis of direct effects was tested against the value of $CR > 1.96$ and $P < 0.05$, which means a significant effect. Results of the testing of study hypotheses are shown in Table 2.

TABLE.2. Diagram of path coefficients of direct effects

Independent variables	Dependent variables	Path coefficient Direct Effect		
		Coefficient	<i>p-value</i>	Note
Internet bank service quality	Customer satisfaction	1,008	0,000	Significant
Internet bank service quality	Customer trust	-0,065	0,762	Non Significant
Internet bank service quality	Customer commitment	0,705	0,019	Significant
Customer satisfaction	Customer trust	1,750	0,000	Significant
Customer trust	Customer satisfaction	0,013	0,000	Significant
Customer satisfaction	Customer commitment	1,206	0,000	Significant
Customer trust	Customer commitment	-0,040	0,000	Significant

B. Effects of Internet banking service quality on customer satisfaction

SEM analysis of the results of the testing of hypothesis 1 showed that Internet banking service quality had a significant effect on customer satisfaction in East Java. Results of data analysis showed the effect of Internet banking service quality on customer satisfaction was 1.008. This means that an increase in Internet banking service quality will significantly increase customer satisfaction. The effect was significant since the p -value was < 0.05 . Thus, the first hypothesis that Internet banking service quality has a significant direct effect on customer satisfaction is accepted. As one of services and also a competitive strategy, the ultimate goal of the use of Internet banking is to satisfy customers. No matter how sophisticated the Internet banking system is, when it ultimately only leads to dissatisfaction, poses a greater risk, as well as increasing customer insecurity, it does not provide added value to banks and customers. Thus, customer satisfaction with using the internet banking facility needs to be evaluated and the determinants should be identified. Understanding of the determinants of customer satisfaction with internet banking will provide empirical information useful for bank management in order to improve the quality of customer services.

Internet banking service quality (IBSQ) had a significant effect on internet banking customer satisfaction. However, dimensions of internet banking service quality are not entirely the same as those of conventional banking service quality. IBSQ dimensions include online service quality, online information system quality and banking service product quality [17,18,19]. Additionally, results of this study indicated that the level of customer satisfaction was influenced by Internet banking service quality and also other factors. This is in contrast

with a previous study conducted Bedi, [24] which found no significant relationship between Internet service quality and customer satisfaction. An improved quality of internet banking services is offered to the personal banking customers to conduct routine banking transactions. Internet banking is a system that allows customers to access bank accounts and general information of products and services of a bank via a personal computer or other electronic equipment. Generally, these transactions include checking accounts, observing the list of transactions that use the accounts and transferring funds from one account to another account online. Internet banking allows users to dial and use the software of a bank providing Internet services. This banking type allows customers to access bank accounts in locations with internet access.

In its development, Internet banking is considered as a strategy capable of revolutionizing the way a bank operates. The cost of bank transactions over the Internet is the cheapest. Viewed from the customer point of view, Internet banking provides a convenient and effective approach to regulating an individual's payment tools that can be accessed 24 hours a day. Especially for companies, sophisticated cash management packages offer them with the latest information every minute, allowing fund management decisions to be made at any time. Service is crucial since an increase in services, especially Internet banking service quality, can improve customer satisfaction [25]. Internet banking service quality is one factor capable of boosting customer satisfaction. Service quality represents customer evaluation of the excellence of service performance [26]. Furthermore, Chang *et al.* [27] argued that, when the services provided are capable of meeting customer expectations, customers will be satisfied. Service

quality as perceived by the customer influences customer satisfaction and customer satisfaction in turn affects customer loyalty. According to Zhu and Lin, [28] service quality can affect customer satisfaction and can lead to customer loyalty.

C. Effects of Internet banking service quality on customer trust

Results of the testing of hypotheses 2 showed that Internet banking service quality significantly influenced customer trust in East Java. Results of data analysis indicated that the effect of Internet banking service quality on customer trust was -0.065 . Effect of Internet banking service quality on customer commitment was -0.065 . This means that an increase in Internet banking service quality would lower customer trust in East Java. The effect was insignificant since the p -value was > 0.05 . Thus, hypothesis 3 that Internet banking service quality has a significant direct effect on customer trust in Bank of East Java is rejected.

These results are in contrast to those of Cho and Hu, [29] which showed that Internet banking service quality had a positive effect on customer trust. The higher the Internet banking service quality, the higher the level of customer trust will be. The present study indicated that efforts to increase Internet banking service quality were not directly proportional to trust. Bank has been a bit late and faltering in providing internet banking services. Other banks had already launched Internet banking services much earlier. A newly provided service requires adaptation and takes a long time to be accepted by customers. Customers could not easily trust the ability of Bank to provide internet banking services. This was compounded by the many cases of fraud and other criminal cases related to Internet banking facilities. This led to customer distrust, despite the intention of Bank to improve its services with internet banking.

Another factor worthy of discussion in the present study is the core business of Bank, which is in housing loans. Housing loan services have the brand of Bank. Provision of other services, in this case internet banking services, beyond the Bank's core businesses would lead customers to question the feasibility and capability of the bank in managing these services, despite the main purpose of Bank to improve its quality of services with the Internet banking. Customers remained seeing and considering the extent to which Bank could well provide the Internet banking services. As time goes by, it is expected that customer trust in the Internet banking will increase. Continuous innovations and improvements in service quality will be the basic capital for the creation of customer trust. Durkin and O'Donnell [30], who examined market analysis and efforts to improve Internet banking service quality, showed the five factors causing customer distrust in Internet banking facility: (1) the fear of the theft of funds with the use of Internet banking; (2) no clear guidebook; (3) failure of connections; (4) rare use of Internet banking; and (5) unawareness of Internet banking facilities.

In addition to the above factors, the background and profile of respondents provided a picture confirming the insignificant correlation of Internet banking service quality to customer trust. Customers consist of civil servants and private employees with an average income per month of IDR 2,000,000 to 3,000,000. Their average transaction is 1 to 2 times a month for salary and housing loan transactions. With such a customer

profile, Internet banking facility is surely less necessary. The main purpose of banking transactions for customers is mostly for housing loan transactions. Thus, Bank needs to expand its target market, especially for customers with online businesses.

Results of the present study are also in contrast to those of other researchers, which showed that Internet banking service quality had a positive and significant effect on customer satisfaction and customer trust [21,31,32,33,34]. Compared with other variables directly related to the Internet banking service quality such as customer satisfaction and customer commitment, it appeared that, in fact, the customers have been satisfied, aware and had high commitment to Internet banking services. However, they have not been so sure that they really needed the services. Bank should immediately take marketing steps with promotions in order to make this facility really recognized and trusted by customers in addition to the housing loan services that have been trusted by the customers. In addition, Bank needs to include Internet banking in its housing loan facility.

D. Effects of Internet banking service quality on customer commitment

Results of the testing of hypothesis 3 showed that Internet banking service quality had a significant effect on customer commitment in East Java. The result indicated that the effect of Internet banking service quality on customer commitment was 0.705 . This means that an increase in Internet banking service quality would substantially increase customer commitment. This effect was significant since the p -value was < 0.05 . Thus, hypothesis 3 that Internet banking service quality has a significant direct effect on customer commitment in East Java was accepted. A bank is a business entity engaged in providing customers with fund collection and distribution services. In its efforts to create high customer commitment, banks seek to improve the quality of banking services. Internet banking service quality may indicate the quality of a bank. A bank capable of providing customer with quality services will lead the customers to be committed to the bank. This customer commitment leads to customer loyalty. Quality services are a combination of direct services and online services. This combination of services leads customer transactions to be no longer limited by space, time and amount.

These results are in line with those of Park *et al.*, [35] which showed that Internet banking service quality had a significant effect on customer commitment mediated by customer satisfaction and customer trust. Internet banking service quality can affect commitment via customer satisfaction and customer trust. Customer commitment is established by Internet banking service quality, customer satisfaction and customer trust. Commitment in question is the commitment to Internet banking service quality that has made customers satisfied. Internet banking service quality results in the establishment of better relations with customers who can use one of Internet banking, phone banking, or ATM, but more likely in combination. This leads customers to be

motivated to maintain a long-term relationship. Customer commitment is what determines the success of a long-term relationship between the customer and the bank [36,37,38]. Furthermore, Bugel [39] argued that customers have made evaluation with regard to choosing automatic/on-line/internet banking services and their desire to use the service was not only influenced by the perception of the attributes associated with that service. Despite all of it, customers had already has commitment to the bank, regardless of the services provided by the bank.

E. Effects of customer satisfaction on customer trust

Results of the testing of hypothesis 4 showed that customer satisfaction had a significant effect on customer trust in East Java. Results of data analysis indicated that the effect of customer satisfaction on customer trust was 1.750. This means that an increase in customer satisfaction will substantially increase customer trust. This effect is significant since the p -value was <0.05 . Thus, hypothesis 4 that customer satisfaction has a significant direct effect on customer trust in East Java was accepted. Customer trust is established from customer satisfaction, which later creates customer commitment [40]. Customer commitment represents a stage of achievement favorable to a company, which demonstrates a consistent relationship between customers and the company. This is because customer commitment can reduce marketing costs and attract new customers. In addition, customer commitment is capable of making a company survives the fierce competition of an industry. The findings of a study conducted by Chung and Kwon [41] showed that customer satisfaction had a significant effect on trust (unwillingness to switch brands). Customers trust and make repeat purchases due to the effect of customer satisfaction.

In case of customer perception of good or as-expected service quality, customers will be satisfied, trusting and committed to being loyal customers. Customers' satisfaction, trust and commitment to goods/services will easily create customer intention to repurchase and tendency to intensify the purchase of the goods/services, as well as being more loyal to the goods/services. In the end, a long-term relationship between consumers and producers is established. Consequently, both sides are required to be consistent with the relationship in which consumers must pay for the benefits provided by producers of goods/services and marketers are constantly striving to provide and create better beneficial values of the services. Customer satisfaction with utilizing Internet banking facility had a significant effect on customer trust. A study conducted by Sohail and Shaikh [42] showed that the higher the level of services provided by a bank – or, an increase in satisfaction – the higher the customer trust will be. Liu and Wu [32] in their study investigated customer perception of a bank's services. The results showed that service quality had a positive relationship with customer satisfaction. In addition, customer satisfaction had a positive relationship with customer trust.

Customers can trust Internet banking services after they are aware of the benefits and advantages as well as satisfied with the quality of Internet banking services. Internet banking services become the trend of modern customers and reflection of customer satisfaction. Internet banking provides

advantages: (1) business expansion, in which formerly a bank needs to have a branch office to operate in a particular place. Then, this need is eliminated by simply placing ATM machines in desired places. Presence of phone banking began eliminating physical limit in which customers can use the telephone to conduct banking activities. Now, Internet banking further facilitates banking activities since it eliminate spatial and temporal boundaries. With trusted Internet banking services, those customers with high mobility will find it more convenient to perform banking activities without having to open an account at a different bank in various places. They can use only one bank. (2) Revenue and cost improvement, in which the cost to provide banking services via Internet can be cheaper than opening a branch office or placing an ATM machine. (3) Competitive advantage, in which a bank with Internet banking services will have an advantage over those with none of those services. Customers do not want to open accounts at a bank with no Internet banking facility. (4) New business mode, in which Internet banking allow for novel business models. Novel banking services can be launched quickly via the Web. The application of information technology to Internet banking can be broadly divided into two parts: front-end (related to customers) and back-end (related to the bank). Both parts are usually separated by a firewall (a single or multiple firewalls, according to the desired reliability and performance) [43].

F. Effects of customer trust on customer satisfaction

Results of the testing of hypothesis 5 showed that customer trust had a significant effect on customer satisfaction in East Java. Results of data analysis indicated that the effect of customer trust on customer satisfaction was 0.013. This means that an increase in customer trust will significantly increase customer satisfaction. This effect was significant since the p -value was <0.05 . Thus, hypothesis 5 that customer trust has a significant direct effect on customer satisfaction in East Java was accepted. Universally, customer trust and customer satisfaction is positively related. This is in accordance with Wu [44,40,9,45,46]. According Meuter [8], there is a growing consensus associated with customer satisfaction and service quality. Satisfaction with a service is associated with confirmation and disconfirmation of expectation. This is in line with Oliver [47], who argued that disconfirmation is customers' overall evaluation of a service, whether the service and the attributes are good, the same or less than expected.

The concept of a causal relationship between service quality and customer satisfaction is directly influenced by customer trust [48]. Consumer satisfaction influences purchasing behavior [49]. Repeat purchasing behavior indicates that consumers trust the services they receives. According to Martin et al., [50] customer trust is strongly correlated to customer satisfaction. Consumer trust is a ticket to success of all businesses; trusting customers are those satisfied consumers and, in order to achieve customer commitment, trust and satisfaction constitute the main requirements [51]. In addition to IBSQ,

another factor capable of affecting Internet banking customer satisfaction is trust [15]. Trust also includes customer trust that other party's appointment will be kept in such that customers are willing to perform its obligations. The concept of trust emphasizes the willingness of an individual to commit an act that brings positive results to the other party [52]. Trust has a crucial role in the context of the company–customer relationship. Strong or high trust leads to customer satisfaction and loyalty [21].

Trust is a key element for the success of relationships and tends to relate to various customers' assessment of services and perceived satisfaction [32]. Trust has a significant partial effect on satisfaction [53]. Trust as customers' perception of reliability is based on experience, or leads to a transaction or interaction stage characterized by the fulfillment of expected product performance and achievement of satisfaction [54]. Rolland and Freeman [43] proposed that trust is formed by the customer satisfaction, subsequently leading to customer commitment. Customer commitment represents a stage of achievement favorable to a company, which demonstrates a consistent relationship between customers and the company. This is because customer commitment can reduce marketing costs and attract new customers. In addition, customer commitment is capable of making a company survives the fierce competition of an industry.

G. Effects of customer satisfaction on customer commitment

Results of the testing of hypothesis 6 showed that customer satisfaction had a significant effect on customer commitment in East Java. Results of data analysis indicated that the effect of customer satisfaction on customer commitment was 1.206. This means that an increase in customer satisfaction substantially increases customer commitment. This effect was significant since the p -value was <0.05 . Thus, hypothesis 5 that customer satisfaction has a direct significant effect on customer commitment in East Java is accepted. Customer satisfaction with Internet banking led to customer trust and customer security. Delighted and satisfied customers will be motivated to repeat transactions.

The findings of the present study are supported by the field findings that the customers had quite high commitment. Effects of service quality on customer satisfaction influenced customer commitment, which finally led to customer loyalty. An increase in customer satisfaction with service quality will certainly increase customer satisfaction and commitment and loyalty. The concept of service quality has become a very dominant factor of a bank's success. In case of customers' perception of good or as-expected service quality, they will be satisfied, trusting and committed to being loyal customers. Customers' satisfaction, trust and commitment to a bank will easily create customer intention to make repeat transactions and tendency to intensify transactions, as well as being committed to being more loyal. In the end, a long-term relationship between customers and the bank established. Consequently, both sides are required to be consistent with the relationship in which customers must pay for the benefits provided by the bank and the bank constantly strive to provide and create better beneficial values of the services.

In its effort to create committed and loyal customers, banks seek to improve service quality. Banking service quality

can indicate the quality of a bank. A bank capable of providing quality service and customer satisfaction will make its customers committed to being loyal [9]. This finding is also supported by that of Casaló *et al.*, [40] indicating that satisfaction with the quality of service had an effect on commitment and loyalty. In case of less satisfactory service, customers tend to be disloyal. In case of a bank's incapability to provide good service, customers will feel uncomfortable and move to another bank. In case of customer satisfaction with banking services, it is likely that they will come back again and perform other transactions and also recommend the bank's online products to their friends and families. In addition, it is less likely that customers move to another bank. Maintaining customer satisfaction over time will build a good relationship with customers. It can increase profits in the long term.

Customer satisfaction can be achieved with services oriented to customer satisfaction. Thus, (1) customers will maintain commitment to the bank so the bank can retain its customers not to switch to other banks. (2) Customers will inform the bank's satisfactory services to others, which in turn will be an effective, free promotional tool. Attempts to obtain or retain customers can be achieved by providing customers with quality service and an understanding that service is not only limited to fulfillment of customer needs but also personal satisfaction. A bank's best and optimal services are aimed at satisfying its customers continuously to make them loyal to the bank and create the bank's good image by means of the services provided. Oliver [47] defines satisfaction as an attitude towards the outcome of the transaction and it is expected that satisfaction will affect further behavior or customer commitment. Companies make efforts to provide their customers with the best in order to fulfill their expectation, which will lead to customer satisfaction and positive customer experience.

H. Effects of customer trust on customer commitment

Results of the testing of hypothesis 7 showed that customer trust had a significant effect on customer commitment in East Java. Results of data analysis indicated that customer trust had a negative effect on customer commitment of 0.04. This means that, despite the decline in customer trust, customer commitment remained substantial. This effects was significant since the p -value was <0.05 . Thus, hypothesis 7 that customer trust has a significant direct effect on customer commitment in East Java was accepted. Customer commitment had been established due to Internet banking service quality. Thus, despite the decline in customer trust, customers remained having high commitment. This was evidenced by the significant, though negative, effect of customer trust. Alternatively, the bank has been improving the quality of services, especially with Internet banking service quality. Insignificant relationship between Internet banking service quality and customer trust did not affect customer commitment. Despite customers' distrust in quality improvements via Internet banking service quality, customer commitment remained high. Customers had high commitment to keep making transactions by using services

provided by Bank. Those customers were highly loyal to Bank.

The findings of the present study are supported by Ziaullah, [51] who argued that trust constitutes an important element that affects the level of customer commitment, which in turn leads to customer loyalty. The findings of this study are also supported by Casaló *et al.*, [40] who stated that customer trust in a bank is an important factor affecting customer commitment and loyalty. In banking sector, trust is a crucial factor. With high customer trust, banks may raise funds as much as possible from customers and customers will always be loyal to the bank. Customer satisfaction with the performance of a banking product will encourage customers to make repeat transactions and build trust and commitment and loyalty to the banking products. Customer trust and commitment and loyalty are measures of customer attachment to a bank. These measures can provide an idea of whether or not customers switch to another bank. Many factors influence customer commitment loyalty, such as product quality, service quality, product design, price and trust.

Trust constitutes one of the important elements of customer commitment and loyalty. Yousafzai *et al.* [21] suggested the importance of trust for banks due to the relationships characterized by high trust. The interested parties will be willing to carry out their commitment to a successful working relationship. This requires trust, mutual respect, good communication and a willingness to share with partners. Customer trust in a bank represents an important factor affecting customer commitment and loyalty since in the banking sector trust is a crucial factor. In line with this, Durkin and O'Donnell, [30] who examined market analysis and efforts to improve Internet banking service quality, showed the five main factors causing customer with ATM card unwilling to utilize Internet banking facility: the fear of the theft of funds with the use of Internet banking; no clear guidebook; failure of connections; rare use of Internet banking; and unawareness of Internet banking facilities. The present study indicated that improving service quality with Internet banking service quality is expected to improve customer satisfaction and commitment. Customer satisfaction will increase customer trust that will lead to customer commitment and loyalty.

Customer-company relationships are mostly determined by trust and commitment. Customer trust reflects all the knowledge possessed by the customer and all the conclusions drawn by the customers regarding an object, attribute and benefit. Trust in an object, attribute and benefit shows customer perception of a bank and, therefore, customer trust in a bank is certainly different among customers. The higher the trust, the higher the customer commitment will be to remaining loyal to a bank [51]. Customer trust constitutes a strength in demonstrating customer commitment to a service [35]. Trust has an effect on customer commitment and customer trusting commitment will affect the intensity of loyal visitors [21]. Customer trusting commitment is customer commitment to keep in touch with a company due to trust in the company, which leads to customer re-purchase of the products produced by the company [49]. Trust is built on customer satisfaction, which eventually creates customer commitment [48]. Customer commitment represents a stage of achievement favorable to a company, which demonstrates a consistent relationship between customers and the company.

This is because customer commitment can reduce marketing costs and attract new customers. In addition, customer commitment is capable of making a company survives the fierce competition of an industry. Customer satisfaction is a mediator variable that relates customer trust to customer commitment [47].

Conclusion

Internet banking service quality had a significant effect on customer satisfaction and customer commitment. Internet banking service quality has no significant effect on customer trust. Internet banking service quality had a significant effect on customer commitment mediated by customer satisfaction. Internet banking service quality had a negative effect on customer commitment mediated by customer trust. Customer satisfaction constitutes a mediator variable relating customer trust to customer commitment. In order to improve customer satisfaction with the use of Internet banking, the bank must have a high commitment to maintaining and improving Internet banking service quality. Efforts to increase customer satisfaction by improving Internet banking service quality will in turn create customer commitment and loyalty. Customer satisfaction will increase customer trust, which will lead to customer commitment and loyalty. Similarly, customer trust will increase customer satisfaction, which eventually leads to customer commitment and loyalty. Future researchers are recommended to expand the present study by incorporating several other variables that may theoretically affect customer satisfaction. Additionally, it is recommended to expand the scope, object and respondent of the study. Expansion of the study is expected to provide more comprehensive, better and valuable results.

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