MEASUREMENT OF ACCOUNTING INFORMATION SYSTEM IN E-BANKING PERFORMANCE

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ABSTRACT
Utilization of accounting information system on e-banking feature has been widely used by banking services industry in Indonesia. The quality of bank service is highly depend on the capacity of information system to build e-banking. Currently internet banking is a major concern and revolutionary media transaction. The purpose of this research is to know the influence of ease of use, personal technical skills, security and confidentiality and user involvement of accounting information systems on e-banking users’ trust. The analytical method used is Confirmatory Factor Analysis to confirm validity and reliability of the indicator of its latent variables. This study informs that the ease of use, personal technical skills, security and confidentiality have significant relation to e-banking users' trust. In contrast, user involvement of accounting information systems has no significant effect on e-banking users' trust.

Keywords: Computer Capability, Accounting Information System, e-banking, ease of use and security

1. INTRODUCTION
The development of internet technology was adopted by the banking industry to develop services. This opportunity is used by banks in Indonesia both state and private banks, because the internet media is a sophisticated innovation in the opportunities and challenges of its development. Diavastis, et al. (2016) and Krishnan et al. (2012) informed that the development of electronic transaction based banking services. Actually internet banking or mobile banking is a real and inevitable activity. ATM services (Automatic Teller Machine), Credit Card and other bank services is a mandatory task for banks in Indonesia to seize market share. Currently internet banking is a major concern and revolutionary media transaction. It is become generic strategic for bank operations, services delivery and competition between banks. Online banking is introduced as a service channel so bank customers can perform electronic banking activities through the bank's website (Lienbana et al, 2013). Customers can conduct non-cash transactions at any time easily and conveniently by accessing via computer (internet network). Innovation of banking services through internet...
banking technology is expected to suppress transactional cost and service queue. These constraints are often seen during operational hours in bank offices. Internet banking can be used for various forms of online transactions such as: knowing account balances and bank transaction history, paying various forms of bills and transfers between accounts. Electronic banking is growing fast in line with customers need. Internet banking is customer-based so that the market share served will be wider.

The science of banking accounting explains that the development of electronic or internet banking is a form of application of accounting information system. Business organizations have adopted information systems to process useful information and to improve the company's performance. Utilization of accounting information system on e-banking feature has been widely used by banking services industry in Indonesia. However, previous research informed that the performance of e-banking information system is still experiencing many constraints. Accounting information system (SIA) in e-banking services is fast growing impact on service level to customer become well. Service is very important in the banking industry. In the bank's internal aspect, the accounting information system on e-banking services has an important role to enhance the services of operational and non-operational activities of banks in Indonesia. There are three areas of information technology utilization in banking. First, support services directly to customers. Second, support back office activities. Thirdly, it is indirectly related to the operational activities of banking transactions, but has an important function to support bank’s management to make decision (Manchanda, et al. 2015; Liébana, et al. 2016; Shah et al, 2014). The use of accounting information systems in e-banking services is used as a benchmark for the success of the service system. User information satisfaction becomes the bank's main goal to improve their performance. It was concluded that user involvement, system ease and user system trust (UIS) are the benchmarks of the success of information systems. The results of previous studies more research on accounting information system performance factors in manufacturing companies and non-bank service companies, but still rarely research in the banking industry. Leonardi, et al. (2016); Liébana, et al (2013); Mohsen & Ahmad, (2012); Amen, (2016); Chu Fen Li, (2013); Salimon et al. (2017) informed that there are several factors that affect the performance of accounting information systems in e-banking services, including user engagement, ease of use, utilization and confidentiality and personal technical skill

2. LITERATURE REVIEW

2.1. Trusted Use of e-Banking

Trust is very important aspect in banking transactions, such as online transactions in dire need of trust, distrust of customers with online services because of the risks in these transactions. According to Akinyemi et al. (2013) confidence may affect the behavior of users of e-banking services. Trust is the mental state that occurs by the information user situation and its social context. When the user takes a decision, then the user will prefer decisions based on the choice of the more reliable users than the less trusted. Trust is very important and high value, because without the trust of customers, bank cannot develop. According to Aysha et al. (2015) defines trust as the reliability and dependability of customers who have purchased products and services. There are three forms of belief that are trustworthy calculus, relational trust and institutional trust. Aysha, et al. (2015) explains that trust is a major factor affecting the implementation of online banking services.
2.2. Theory Y and Achievement Theory
The theory that supports the relationship of user involvement in the process of system development on accounting information system performance is the Y theory of Mc Gregor (1957). This theory states that information users will direct and control themselves to achieve goals if they feel attached to it. Under appropriate conditions, they learn to accept and seek responsibility (Leonardi, et al., 2016). The theory that supports the relationship of personal information systems engineering skills is the theory of achievement. This theory states that behavior change occurs because individuals want to succeed. Individuals who have a strong predisposition to doing things better have a high chance of making the desired changes.

2.3. e-Banking
E-banking is an electronic banking service that combines information and technology systems. E-banking includes ATM, phone banking, mobile banking, SMS banking and internet banking (Malarvizhi & Geetha, 2017). The Indonesian Bankers Association (2017) defines ATM as a service through terminals or computer machines used by Banks linked to other computers through data communications that enable customers to withdraw money or perform other banking transactions. Phone banking is a service through an electronic distribution channel of a bank to access an account owned by a customer by calling a certain telephone number which is a phone banking service access number through a telephone or other mobile communication device.

2.4. Perception of Ease of Use
Mohsen & Ahmad, (2012) argues that the perception of ease of use is defined by Davis as the level of user convenience in using a particular system (new technology) to improve its performance. According to Asad (2013) perceived ease of use (perceived easy of usefulness) is defined as user perceived convenience in using certain technologies to improve performance. So, users are likely to use or not to use an app. Users will also believe that the easier it will be to improve the performance of their work. According to Asad (2013), perceived easy of usefulness reflects the subjective probability of potential users applying new technologies, whether to benefit themselves or their organizations.

2.5. Perception of Security and Confidentiality
According to previous research conducted by Shah et al, (2014), the security system is referred to as confidentiality protection in e-banking transactions. Security can be enhanced by the use of adequate encryption, digital signatures and firewalls. Neha et al. (2010) study has informed that security is a subjective probability with consumers believing that their personal information will not be seen, stored and manipulated by unauthorized parties. Whereas in the research conducted by Shah et al (2014), security and confidentiality are defined as protection against security threats and control of customer personal data in an online environment

2.6. Customer Satisfaction
Satisfaction is the level of feeling in which a person expresses the results of the comparison of the performance of the products and services received or expected (Kotler and Keller, 2012). Customer satisfaction is a person's feelings after comparing the performance or outcome he perceives as compared to his expectations. According to Kotler (2012) satisfaction is a sense of pleasure from customers that arise because comparing performance perceive to the product or the results of what is expected. If performance fails to meet expectations, then the customer
is not satisfied. However, if the performance is in line with expectations, customers will be satisfied. If performance exceeds expectations, customers will be very satisfied or happy.

2.7. Personal Technical Skill
Personal technical skills include the ability to apply specific knowledge or expertise. Technical skills can be obtained from formal and non-formal education (Malarvizhi & Geetha, 2017). Special technical skills in one particular area that caused by expertise is also call as a technical skill too. But there are also shapes in the ability to work together, understand, and motivate other individuals, both individually and in groups, define human skills as a real form of technical skills. Many individuals are technically proficient, but not interpersonally skilled. Users will feel more confident and helpful in carrying out accounting transaction activities related to e-banking.

2.8. Relationship of User Accounting Information System Involvement with Trusted Use of e-Banking
User participation is the involvement of information system users in the development of e-banking design system. If the user is given the opportunity to provide opinions and proposals in the development of information systems, the psychological user will feel that the information system used is his responsibility, so that the information system performance is expected to increase. User involvement is an involvement in the system development process by members of the organization (Diavastis, et al. 2016; Cohen, et al. 2015).

$H_1$: Perceptions of user involvement of accounting information systems have significant effect on e-banking users' trust.

2.9. The ease of Use of Accounting Information Systems on the Trusted Use of E-Banking
Liébana et al. (2013) and Krishnan et al (2012) found that the intention of using internet banking was influenced by TAM (Technology Acceptance Model) proposed by Fred D. Davis. TAM refers to user attitudes towards the acceptance of information technology developed into perceptions of ease of use and perceptions of the benefits of information technology (Davis et al., 1989). The perception of ease of use makes one who uses information systems more easily perform their activities compared to those not using (Mohsen & Ahmad, 2012).

$H_2$: Perception of ease of use of accounting information system has significant effect on e-banking users' trust.

2.10. Relationship of Security Perceptions and Confidentiality to Trusted Use of e-Banking
Previous research by Shah et al (2014); Bajaj & Sion, (2014); Chu Fen Li (2013), explains that good security and confidentiality can increase customers' confidence in using e-banking. The success of technology adoption is influenced by customer confidence in technologies such as e-banking and issues related to security and confidentiality affecting the behavior of customers who will use e-banking. Security is the extent to which one believes that e-banking is fully guaranteed and has no threat associated with secrecy (Radulescu, 2015).

$H_3$: Perceptions of security and confidentiality have a significant effect on e-banking users' trust.
2.11. Relationship of Personal Technical Ability to Use Accounting Information Systems to Trusted Use of e-Banking.

Malarvizhi & Geetha, (2017) argues that the higher the technical ability of accounting information systems will increase the user confidence of e-banking information systems due to a positive relationship between the personal skills of accounting information systems and the performance of e-banking information systems. In line with research conducted by Salimon et al, (2017) that found a positive relationship between personal technical capability in e-banking information system on user trust of e-banking information system.

H4: The personal technical capability of using accounting information system has significant effect on e-banking user's trust.

3. RESEARCH METHOD

Ghozali (2013: 52), defines the validity test used to measure whether the questionnaire is valid or not valid measured from the questionnaire. When measuring something to be measured it is said to be valid if it has done the measurement. Have a valid instrument if it has a high validity, and vice versa if the validity is low then the valid level is low. Validity test is done by doing a way of correlation with scores that have been obtained from each of the answers of the respondents. If the results of the analysis show the significance value exceeds 0.05 (> 0.05) then the items in the questionnaire do not show the validity value so that it cannot be continued as a research instrument, and vice versa. Reliability is the term used to indicate the extent to which a measurement result is said to be relatively consistent when the measurement is repeated two or more times. A questionnaire is said to be reliable if the respondent's answer to the statement is consistent or stable (Ghozali, 2013: 48). For the alpha coefficient level is said to be reliably when the coefficient value is > 0.6, otherwise if <0.6 indicates the absence of consistency or unstable (Imam Ghozali, 2013: 140).

4. RESULT AND DISCUSSION

The result of tabulation of research data survey, 60 banks in Indonesia which have taken from June 2017 – June 2018, showing that from 383 filled questionnaires there are 23 not complete questionnaires that should be discarded.

Source: Processed results by SMART-PLS

Figure 1 Stuctural Modelling of Ease of Use, Personal Technical Skill, Security and Confidentiality, User Involvement and e-banking users' trust.

The result of data tabulation shows that the respondent response rate fill the questionnaire is high enough 85.1%, it is indicated that there are 383 questionnaires returned and filled from
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450 questionnaires distributed. The results of screening data informed that the interest rate of respondent on each option question is high enough for 91.3%, it is indicated that there are 350 complete questionnaires. Data analysis in this research is divided into 3 stages namely, outer model, inner model and MSEM score factor. Outer model in this research using confirmatory factor analysis method. Inner model in this study using T-statistic value.

4.1. Outer Model - Confirmatory Factor Analysis

Outer model in this research was using confirmatory factor analysis method. Confirmatory Factor Analysis is used to determine the validity and reliability of indicators against latent variables. Confirmatory Factor Analysis is divided into 2 stages of validity and reliability. The validity criteria are met if the value of loading factor is more than 0.7 and the Average Variance Extracted (AVE) value is more than 0.5 while the reliability criteria are met if the composite reliability value is more than 0.6. The result of validity and reliability test of ease of use, personal technical skill, security and confidentiality, user engagement and e-banking users' trust inform each indicator able to explain well its latent variable, it is indicated that all of the value of loading factor indicator to latent variable > 0.7. The results of validity and reliability test show that all indicators are able to measure and can explain well the latent variables valid and reliable are presented in Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Loading factor</th>
<th>Average Variance Extracted</th>
<th>Composite Reliability</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Use</td>
<td>EU1</td>
<td>0.825635</td>
<td>0.720914</td>
<td>0.885653</td>
<td>0.773950</td>
</tr>
<tr>
<td></td>
<td>EU2</td>
<td>0.873376</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EU3</td>
<td>0.847516</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Technical Skill</td>
<td>PTS1</td>
<td>0.867269</td>
<td>0.776790</td>
<td>0.912569</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PTS2</td>
<td>0.876236</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PTS3</td>
<td>0.900236</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilization and Confidentiality</td>
<td>UC1</td>
<td>0.855226</td>
<td>0.720916</td>
<td>0.885702</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UC2</td>
<td>0.850909</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UC3</td>
<td>0.841005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Involvement</td>
<td>UE1</td>
<td>0.873977</td>
<td>0.793238</td>
<td>0.920048</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UE2</td>
<td>0.899632</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UE3</td>
<td>0.898076</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e-Banking Performance</td>
<td>eBank1</td>
<td>0.861372</td>
<td>0.741579</td>
<td>0.895930</td>
<td></td>
</tr>
<tr>
<td></td>
<td>eBank2</td>
<td>0.859147</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>eBank3</td>
<td>0.862926</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed results by SMART-PLS

4.2. Inner Model - T-statistic & R-Square

Inner models illustrate the relationship between latent variables. Inner model is divided into 2 stages of influence test and coefficient of determination. In the influence test, the relation of the variable is significant if the value of T-statistic > 1.96, whereas the coefficient of determination is divided into five criteria i.e, the influence between latent variables is very strong if the value of R² > 0.85, strong 0.67 < R² ≤ 0.85 strong enough if the value of 0.33 < R² ≤ 0.67, weak if the value of 0.19 < R² ≤ 0.33 and very weak if the value of R² ≤ 0.19. The result of inner model parameter estimation informs that the R-square value of e-banking user's trust is strong 0.7739 it can be concluded that ease of use, personal technical skill utilization and confidentiality and user involvement variable is able to explain e-banking users' trust with 77.39%. The result of inner model parameter estimation inform the ease of use, personal

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technical skill, security and confidentiality significantly influence e-banking users' trust, it is shown with T-statistic value of each user engagement, ease of use, utilization and confidentiality toward e-banking users' trust more than 1.96 and presented in Table 3.

**Table 3 Hypothesis Testing 1 - 4**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>Sample Mean (M)</th>
<th>Testing Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU -&gt; eBank</td>
<td>0.203641</td>
<td>0.199353</td>
<td>3.892662</td>
<td>Affected</td>
</tr>
<tr>
<td>PTS -&gt; eBank</td>
<td>0.367733</td>
<td>0.371417</td>
<td>5.595427</td>
<td>Affected</td>
</tr>
<tr>
<td>UC -&gt; eBank</td>
<td>0.329532</td>
<td>0.331543</td>
<td>5.388629</td>
<td>Affected</td>
</tr>
<tr>
<td>UE -&gt; eBank</td>
<td>0.066389</td>
<td>0.065028</td>
<td>1.059291</td>
<td>Not Affected</td>
</tr>
</tbody>
</table>

Source: Processed results by SMART-PLS

H1: Perception of ease of use of accounting information system has significant effect on e-banking users' trust

The results of the first hypothesis testing informed that the value of perception of ease of use of accounting information system path coefficient toward e-banking users' trust was 0.2036 with a T-statistic value of 3.8926 > 1.96. These results indicate that perception of ease of use of accounting information system has significant effect on e-banking users' trust (Hypothesis 1 is accepted) and the influence of perception of ease of use of accounting information system on e-banking users' trust is positive, which means that any change in perception of ease of use of accounting information system improvement will influence the improvement of e-banking users' trust and vice versa. Respondents' answers to each question item on the variable ease of use accounting information system informs that when customer's make transactions using e-banking customers are satisfied with the quality of services provided. Customers also feel satisfied with the performance of e-banking, which is reinforced by the respondent's answer that the majorities agree with the ease of use of accounting information system in financial transactions via e-banking. The majority of respondents agreed with the ease of use of e-banking services and service features that are easy to understand and provide the right information. It is known that nowadays almost all banks in Indonesia have implemented e-banking services and competition is getting tighter so that prospective customers are more satisfied with the products and services in a bank, so customers will be more loyal to the bank. When viewed from the results of this study that pointed to accelerate and improve the quality of service to customers so that customer confidence to use e-banking increasing.

H2: The personal technical skill of using accounting information system has significant effect on e-banking user's trust

The result of the second hypothesis testing informs that the coefficient value of personal technical capability of using accounting information system to e-banking user's trust is 0.3677 with the value of T-statistic 5.5954 > 1.96. These results indicate that personal technical capability of using accounting information system has significant effect on e-banking user's trust (Hypothesis 2 is accepted) and the influence of personal technical capability of using accounting information system on e-banking users' trust is positive, which means that any change in personal technical capability of using accounting information system will affect the change of e-banking users' trust and vice versa. Users who understand computer knowledge and internet network technology will be more confident in using e-banking. The breadth and depth of the user's practical knowledge and experience on the knowledge of accounting information systems will further enhance the trust of users transact through e-banking. The mastery and stock knowledge of users will strengthen the trust behavior of users in utilizing e-banking information technology this is different from users who have not enough knowledge about information technology that tends to feel afraid and anxious.
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H3: Perceptions of security and confidentiality have a significant effect on e-banking users' trust

The results of the third hypothesis testing informed that the coefficient value of perceptions of security and confidentiality to e-banking users' trust was 0.3295 with the T-statistic value of 5.3886 > 1.96. These results indicate that perceptions of security and confidentiality have a significant effect on e-banking users' trust (Hypothesis 3 is accepted) and the influence of perceptions of security and confidentiality on e-banking users' trust is positive, which means that any change in Perceptions of security and confidentiality will affect the change of e-banking users' trust and vice versa.

The security and confidentiality of e-banking services in the bank is a very important factor for customers. Respondents informed that the security and confidentiality of customer data recorded in e-banking can affect the customer's sense of trust. The customer assumes that the bank has guaranteed the security and confidentiality of transaction data as well as information in the e-banking service system. Result of this study has shown that the perception of security and secrecy significantly affects e-banking users trust because customers want protected personal information and transactions. Actually, at this time in Indonesia often occurs fraud crime. This type of crime creates a sense of doubt for prospective customers when going to use e-banking services, so banks should continue to improve security and continue to address these issues in order for potential customers to believe that transactions using secure e-banking services. The convenience impression customers experience when transacting will affect the level of customer confidence in a product or service and also to the bank. If the client's confidence level is higher then the customer will feel comfortable while transacting and increasingly loyal to e-banking services.

H4: Perceptions of user involvement of accounting information systems have significant effect on e-banking users' trust

The result of the fourth hypothesis testing informs that the coefficient value of perceptions of user involvement of accounting information systems to e-banking user's trust is 0.0663 with the value of T-statistic 1.0592 <1.96. These results indicate that perceptions of user involvement of accounting information systems has no significant effect on e-banking user's trust (Hypothesis 4 is rejected). User involvement in e-banking system design does not affect the ease of creating an e-banking system that suits customers' needs. The involvement of users in the development of e-banking system is felt to hamper the speed and toughness of e-banking system, because customers have different expectations standards. Therefore, banks will build e-banking system more involving the system designers and experts in the field of information systems compared with the general public. However, the role of the general public is limited to providing a map of the needs that must be provided in the e-banking system. The impact is whether or not the customer involved in e-banking development will not affect the e-banking user's trust. Furthermore, users will be more confident that e-banking can help complete all the needs of banking transactions. The involvement of system users is expected to help evaluate and direct the information required by the system to run well in accordance with the expectations of bank customers.

5. CONCLUSION, LIMITATIONS AND SUGGESTION

Currently internet banking is a major concern and a revolutionary media transaction. Have strategic properties for bank operations, services delivery and competition between banks. The conclusion of this study informs that the ease of use, personal technical skills, security and confidentiality have significant relation to e-banking users' trust. In contrast, user involvement of accounting information systems has no significant effect on e-banking users' trust. Limitations of this study are some respondents are less aware of the benefits of this
research for the organization. Lack of enthusiasm in answering the question becomes the cause. In-depth interviews with key informants for better outcomes are difficult, and therefore the questionnaire distribution is an alternative. This study also ignores the psychological condition of respondents when answering questions, so there is a possible answer that respondents are biased. The suggestion of this research is to broaden the scope of indicators that affect e-banking users' trust with feedback indicators of e-banking services and reliable of e-banking applications. Dividing the respondents into beginner and established clusters will provide depth of discussion according to the characteristics of the respondents.

REFERENCES


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