



Intention to use Self-service Technology: Blitzmegaplex Jakarta

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Abstract: *Objective – Due to the advancement of technology, the service delivery process has changed in various industries. The service process has been utilized as a means to create competitive advantages by many industries. The main purpose of this research is to explore the perceptions of non-users of self-service technology towards the potential convenience and control benefits of using the technology and how they influence the non-users' overall perceptions of speed of transaction, trust in the service provider and future intentions to use the self-service technology.*

Design / Methodology / Approach – Cronbach's Alpha and Confirmatory Factorial Analyses were utilized to determine reliability and validity of the constructs. Multiple linear regression and mediation analysis were used to determine whether there were any relationships between the variables.

Result & Conclusion – The result concluded that both the perceived control and perceived convenience act as mediators between the relationship of speed of transaction, and trust in a service provider to intention to use self-service technology. The findings also show that both perceived control and perceived convenience can directly influence an individual's intention to use self-service technology.

Practical Implications – The findings suggest that it is important for companies to offer self-service technology that can increase customer's perception of control and convenience as those characteristics can affect the customers' intention to use self-service technology in the future. It is also crucial to emphasize the speed of transaction and trust in the service provider as both factors have a mediating impact between customers' perceived control and perceived convenience towards their intentions to use self-service technology.

Keywords: *self-service technology, perceived convenience, perceived control, speed of transaction, transaction, trust in a service provider, intentions to use self-service technology.*

1. INTRODUCTION

The service delivery process between customers and companies has changed extensively due to the advancement of technology. Service providers have adopted a new channel to serve their customers using self-service technologies (SSTs). Self-service technology is a technology interface where customers are encouraged to actively produce goods and services independent of direct service provider involvement [1].

The meaning of 'service' has changed due to the use of SST, taking into consideration that customers are often required to change their shopping behavior in order to use an SST. However, some customers believe that SST is not considered the same as the term "service" because SSTs do not provide the same level of service as one gets when interacting with a salesperson [2]. Traditionally, employees provided service for customers. However, the definition of service as something that

is personal has been radically changed by technology, especially in terms of how service is perceived of and developed.

Although self-service technology is becoming increasingly important in various industries, including the cinema industry, there is still scarce knowledge regarding how they provide a competitive advantage to companies or what makes them appeal to customers using SSTs. Therefore, this research addresses these gaps by providing insight into how SSTs can be further utilized.

The scope of the present research is to explore the perceptions of non-users of the potential convenience and control benefits of using the SST of Blitzmegaplex in Jakarta and how they influence the non-users' overall evaluations of speed of transaction, trust in the service provider and future intentions to use the SST, replicating a study by Collier and Sheller (2010) in relation to intention of users and non-users to use SSTs..

The non-user respondents were aware of the SST and its applications in the cinema industry, however, had never used it as a transaction at the time of the survey.

This research is important for companies, especially in the cinema industry, because it contributes a theoretical background for marketing knowledge and implications to gain further understanding of what criteria are necessary to assess customers' future intentions in using SSTs. It may help companies to set and execute better strategies that match with their consumers' characteristics in order to increase higher usage of their SSTs.

2. LITERATURE REVIEW

There are five main variables involved in the study; including perceived convenience, perceived control, speed of transaction, trust in service provider and intention to use SST.

A. Perceived Convenience

Perceived convenience was considered to be a simple concept of anything that may increase comfort to the customers when using a service [3]. Service convenience is how customers perceive the time and effort associated with purchasing and using a service [4]. Service convenience has been considered to be a crucial factor in the relationship between customers with a service provider [5].

Customers' associate convenience as less effort associated with using the service, and as such, a higher degree of perceived convenience is posited to result in higher intention to use SSTs.

B. Perceived Control

Perceived control can be defined as a cognitive stage of the flow experience and considered as a belief in a person's own ability to control the procedure and outcome of an event [6]. Previous studies have shown that perceived control is an important and desirable dimension of self-service [1,7,8]

C. Speed of Transaction

Speed of transaction in an SST encounter can be defined as the time spent by an individual to complete a self-service transaction [9]. Customers frequently prefer self-service experiences as it does not take much time to compete the service delivery [10]. A qualitative study [11] suggests that the

speed of self-service transaction is a key to customers' satisfaction, suggesting how speed of transaction has positive influence on the intention to use SST.

Thus, H1 is formulated as follow:

H1: Speed of transaction mediates perceived control and intention to use SSTs (Blitz Ticket Machine).

The customer's perception of speed of transaction in SST usage is affected by various factors, one of them being the convenience of the technology. For example, if the environment surrounding the SSTs' placement is overly crowded, the speed of the self-service process will decrease. The reduction in effort and time in conducting the service process will lead to the higher perceived convenience of using SSTs.

Therefore, hypothesis 2 can be formulated as follows:

H2: Speed of transaction mediates perceived convenience and intention to use.

D. Trust

Previous studies have identified the vital role of trust towards service providers through two findings; that service's intangible nature poses higher risk and uncertainty to the customers. In the self-service context, trust is defined as the willingness of the customer to be exposed to SSTs, considering a certain service provider's characteristics [12]. If a customer can rely on a service provider, he or she would possess higher sense of safety to perform the transaction due to reduced uncertainty. A research by [13] indicates how trust has a pivotal role in forming customers' intention and behavior to use technology in conducting a transaction.

Perceived control and trust are closely related. For example, it has been shown that perceived control has an impact on trust in settings where the websites require the customers to enter their personal information [14].

Thus, the hypothesis can be formulated as follows:

H3: Trust in a service provider (Blitzmegaplex) mediates perceived control and intention to use SSTs (Blitz Ticket Machine).

Trust in a service provider is influenced by the ability of a service provider to give flexibility to the customers in determining the time and location of conducting a service transaction. This ability exhibits the usability and quality of their services; encouraging customers to have higher intention to use the SSTs [15].

Thus, a hypothesis can be formulated as follows:

H4: Trust in service provider mediates perceived convenience and intentions to use SSTs (Blitz Ticket Machine).

E. Intention to use SST

Intention is often used for its ease in terms of measurement and practical difficulties related to measuring the actual behavior [16]. Researchers have identified the reliability of intention through previous researches on either technology adoption or attitudinal research [6, 17, 18].

Moreover, previous studies [8, 18, 19, 20, 21] have stated that the vital component in attitudinal research is the connection between attitude and intention. Intention to use is related to the important long-term outcome and the measurement of the success of the system and the encouragement of the behavior in the future [22].

The research model can be seen as follow:

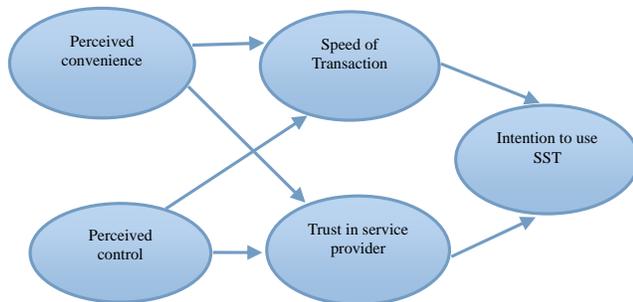


Fig.1. Research model (adopted from Collier and Sherrell, 2010)

3. RESEARCH METHODOLOGY

The study utilizes both qualitative and quantitative methods. A focus group and an interview were conducted in the beginning of the study to gather insights from respondents and the key informant Blitzmegaplex.

The total number of respondents who participated in this survey research was 150, where 97 responses were collected from the online questionnaire and 53 were collected from the paper questionnaire. The required participants were aged between 19-36 years old, who were aware of the self-service technology but, had never used Blitzmegaplex' Ticket Machine as a method of payment by the time of the study.

All the measurements were adapted from the original journal [23] with alterations. A pre-test was conducted prior to the data collection process to test the validity and reliability of the measurement. The two methods selected to test the hypotheses of this study were multiple linear regression analysis and Baron and Kenny's mediation analysis [24]. Multiple linear regressions was conducted to measure how strong the correlation between one dependent variable with two or more independent variables and to analyze whether there are changes to the dependent variable in relation to the independent variables. Baron and Kenny's mediation analysis was used to test the impact of the mediating variables which is done by examining the size and significance of the direct and indirect effects and comparing their strengths.

4. DISCUSSIONS

The first multiple linear regression was conducted to test the influence of the two independent variables of 'Perceived Convenience' and 'Perceived Control' towards the dependent variable of 'Speed of Transaction'

The value of R being 0.630 indicated a strong relationship between the independent variables of 'Perceived Convenience' and 'Perceived Control' towards the dependent variable of 'Speed of Transaction'. The value of the R-square indicates the percentage of variation in the dependent variable in correlation to the variation in the independent variables.

The R-square value was 0.397, indicating that 39.7% of the variation in 'Speed of Transaction' can be explained by the variation in 'Perceived Control' and 'Perceived Convenience'

The second multiple linear regression was conducted to test how strong the influences of the two independent variables of 'Perceived Convenience' and 'Perceived Control' are towards the dependent variable of 'Trust' in a service provider'.

The R-value signifies the level of relationship between the variables. The value of R being 0.302 indicates that there is an average relationship between the independent variables of 'Perceived Convenience' and 'Perceived Control' towards the dependent variable of 'Trust in a Service Provider'. The value of the R-square indicates the percentage of variation in the dependent variable in correlation with the variation in the independent variables. The R-square value is 0.091 which means 9.1% of the variation in 'Trust in a Service Provider' can be explained by the variation in 'Perceived Control' and 'Perceived Convenience'.

The third regression was conducted to test the influence of the independent variables of 'Speed of Transaction' and 'Trust in a service provider' towards the dependent variable of 'Intention to use SSTs'. The value of R being 0.703 indicates that there is a strong relationship between the independent variables of 'Speed of Transaction' and 'Trust in a service provider' towards the dependent variable of 'Intentions to use SSTs'.

The R-square value is 0.494 which means 49.4% of the variation in 'Intention to Use SSTs' can be explained by the variation in 'Speed of Transaction' and 'Trust in a Service Provider'. Thus, independent variables of 'Speed of Transaction' and 'Trust in a Service Provider' have a direct linear effect towards the dependent variable of 'Intentions to use SSTs'.

Several steps of mediation analysis were then conducted to test the hypotheses. In the first step of the analysis, there was a significant relationship between perceived control and intentions to use SSTs with a p-value of 0.000. The R Square shows that 26.4% of the variance in intentions to use SSTs is predicted by the perceived control. The results of this analysis show that the first condition for mediation has been met.

The second step of analysis proved that there was a significant relationship between perceived control and the mediating variable (speed of transaction) with a p-value of 0.000. The R Square shows that 29.4% of the variance in the speed of transaction is predicted by perceived control. The second condition for mediation has been met; the IV is significantly related to the MV.

Speed of transaction and intention to use SSTs were later regressed as the first step of the third analysis and resulted in a significant relation, with 0.000 as its p-value. Speed of transaction explains 49.3% of the variance in intentions to use SSTs (R square = .493). Therefore, MV is significantly related to the DV thus, the third condition has been met.

At step two of the third analysis, perceived control does add significantly to the variance explained (R square change = .025, p = .006) towards intentions to use SSTs when controlling for the effects of the MV. However, since the p value remains significant but the regression coefficients decrease substantially, the author can conclude that there is partial mediation. This means that part of the effect of the IV is mediated by the MV but other parts are either direct or mediated by other variables not included in the model.

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Since all the four conditions required by Baron and Kenny's study (1986) are met with a significant value of lower than 0.05, therefore, hypothesis 1 is supported. Speed of transaction can be concluded as a mediator between perceived control and intention to use SSTs (Blitz Ticket Machine).

For the second hypothesis, the first step of analysis showed a significant relationship between IV/independent variable (perceived convenience) & DV/dependent variable (intention to use SSTs) seeing that the p-value is 0.000, which is less than 0.050. The R Square shows that 20% of the variance in intentions to use SSTs is predicted by perceived convenience. The results of this analysis show that the first condition for mediation has been met; the IV is significantly related to the DV.

After conducting the second step of the analysis, it was proven that there was a significant relationship between perceived convenience and speed of transaction with a p-value of 0.00. The R Square shows that 22.2% of the variance in speed of transaction is predicted by perceived convenience. Therefore, the second condition for mediation has been met.

The speed of transaction and intention to use SSTs were later regressed as the first step of the third analysis and resulted in a significant relation, with 0.000 as its p-value. Speed of transaction explained 49.3% of the variance in intentions to use SSTs (R square = .493) and had a standardized coefficient of .632. Thus, the third condition has been met.

At step two of the third analysis, perceived convenience does add significantly to the variance explained (R square change = .017, $p = .024$) towards intentions to use SSTs when controlling for the effects of the MV. However, the p value remains significant but the regression coefficients decrease substantially, suggesting partial mediation. This means that part of the effect of the IV is mediated by the MV, but other parts are either direct or mediated by other variables not included in the model.

The direct and total effects are interpreted as follows. There was a relationship between perceived control and trust in a service provider with a p-value of 0.046, which is slightly below 0.050. The second step of the analysis proved that there was a significant relationship between trust in a service provider and intention to use SSTs with a p-value of 0.015. The total effect of perceived control and intentions to use SSTs also had a significant relation 0.000 as its p-value. Lastly, the direct effect of perceived control and intention to use SSTs had a p-value of 0.000 meaning that there is a significant relationship between the two variables.

The four conditions required for mediation [24] were met with a significant value of lower than 0.05, therefore, hypothesis 2 is supported. Speed of transaction can be concluded as a mediator between perceived convenience and intention to use SSTs (Blitz Ticket Machine).

The third mediation analysis is conducted to measure the model of trust in a service provider as a mediator between perceived control and intention to use SSTs. The first step of the analysis showed a significant relationship between perceived control and intentions to use SSTs with p-value of 0.000. The R Square showed that 26.4% of the variance in intention to use SSTs was predicted by the perceived control. The results of this analysis show that the first condition for

mediation has been met; the IV is significantly related to the DV.

There is a significant relationship between perceived control and trust in a service provider with a p-value of 0.047. The R Square shows that 2.6% of the variance in trust in a service provider is predicted by perceived control. Therefore, it can be concluded that the second condition for mediation has been met.

Trust in a service provider and intention to use SSTs were later regressed as the first step of the third analysis and resulted in a significant relation, with 0.002 as its p-value. Trust in a service provider explains 9.1% of the variance in intentions to use SSTs (R square = .091). Therefore, MV is significantly related to the DV thus, the third condition has been met.

At step two of the third analysis, perceived control did add significantly to the variance explained (R square change = .222, $p = .000$) towards intention to use SSTs when controlling for the effects of the MV (trust in a service provider). The p-value remained significant but the regression coefficients decreased substantially, suggesting a partial mediation.

All the four conditions required for mediation [24] were met with a significant value of lower than 0.05, therefore, hypothesis 3 is supported. Trust in a service provider can be concluded as a mediator between perceived control and intentions to use SSTs (Blitz Ticket Machine).

There was a relationship between perceived convenience and trust in a service provider with a p-value of 0.003. The second step of the analysis proved that there is a significant relationship between trust in a service provider and intentions to use SSTs with a p-value of 0.143. The total effect of perceived convenience and intention to use SSTs also had a significant relation 0.000 as its p-value. Lastly, the direct effect of perceived convenience and intention to use SSTs had a p-value of 0.000.

Taking into account that all of the four conditions required for mediation [24] was met with a significant value of lower than 0.05, therefore, hypothesis 4 is supported. Trust in a service provider can be concluded as a mediator between perceived control and intention to use SSTs (Blitz Ticket Machine).

5. MANAGERIAL IMPLICATION

Considering the fact that the perceived control of using the Blitzmegaplex' SST is proven to strongly affect customer's intentions to use SSTs therefore, it is important for companies to make sure that they sufficiently design their SSTs in a way that gives their customers a sense of control during the transaction by giving them the ability to dictate the pace of the transaction, the nature of the information flow, level of interactivity and customization of the service offering based on their own desires and needs. Also, to increase customer's trust in the service provider they should give their customers the ability to control the private information that they input and guarantee its security.

The result indicated that trust in a service provider significantly serves as a mediator between perceived control and intention to use SSTs. However, the direct effect of perceived control and intentions to use SSTs when trust in a service provider was controlled was also significant, indicating

partial mediation. This means that though perceived control and intention to use SSTs were significantly related, the strength of non-users' trust perception of the service provider (Blitzmegaplex) can mediate the relationship between their perceived control when using the SST as a payment method and their future intentions to use SSTs. Perceived faster transaction will increase the non-users' intention to use SSTs in the future because SSTs will be more attractive to customers when they are time-saving, especially in overcrowded environments.

Secondly, higher perceived control is also correlated with the trust the customers place in their service providers. With the limited employee involvement when using SSTs, it is crucial that a degree of trust is established for the customers to take on a co-production role, and also to make sure that the companies do not misuse their private information.

According to focus group research conducted earlier, providing customers with a simple interface and clear instructions in the SSTs would give them a higher sense of perceived control. Therefore, it is important for the companies who desire to provide SSTs as one of their interaction channels, to expose and advertise clear and simple instructions how to use the technology as a means to increase their customers' perceived control and thus increasing the speed of the transaction, as well as the trust, in the service provider.

The findings suggest that perceived convenience significantly influences the intention to use SSTs. This suggests that if companies decide to use SSTs, then it is important that they take into account the environment where they place their SSTs, ensuring that the customers can conduct the transaction safely and conveniently,

The interview conducted with one of the Blitz managers revealed that the SSTs use English as the language of instruction, which could decrease the intentions to use the SSTs since customers may experience difficulty comprehending the instructions. To increase the perceived control, it is suggested that Blitzmegaplex offers their customers ability to control which language to use to ensure that the transaction can be successfully conducted.

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Received: .. May 2014. Accepted: ... July 2014