Original Research Article

Model of Consumer Trust: Analysis of Perceived Usefulness and Security toward Repurchase Intention in Online Travel Agent

Mei Larasetiati[1*] and Hapzi Ali[2]

[1]Student of Magister Management Program, Universitas Mercu Buana (UMB), Jakarta, Indonesia
[2]Senior Lecturer of Magister Management Program, Universitas Mercu Buana (UMB), Jakarta, Indonesia

Abstract

This study aims to examine and analyze the effect of perceived usefulness and security on consumer trust towards repurchases intention in online travel agent industry. Research data is primary data derived from online questionnaires sent to consumers which at least had done transaction in Tiket.com Online travel agent. Sampling numbers in this research are 132 respondents and the analysis method used is SEM (Structural Equation Modelling) with AMOS 24 Software. The result reveals trust is able to mediate perceived usefulness and security with repurchase intention in online travel agent industry. Implications and limitations are discussed.
Keywords: Perceived usefulness, security, trust, online travel agent, repurchases intention.

INTRODUCTION

Research Background

Internet has changed many way of business nowadays. Beside e-commerce another business who successfully transformed from conventional to digital is online booking system known as Online Travel Agent (OTA). The rapid growth of the hospitality business is driving the development of an online travel agent business. Mainly Online Travel Agent includes two type services first is for the transportation booking and second for accomodation such hotel or guest house. Indonesia has many interesting tourist destination and large of people population as well making it potential country for online travel agent business.

Tiket.com is a pioneer in Indonesia online travel agent who starts the business back in 2011. Despite being one of the popular OTA in the country they still behind their close competitor Traveloka according to Topbrandaward who make study based on several parameters namely top of mind, last used, repurchase cycle and future intention. In last three years Tiket.com brand index shows decline trend since the competition in business getting intense. According to similarweb Tiket.com visitors reach 8, 9 million unique visitors through year 2018 which is number two behind Traveloka lead the competition with 39 million visitors.

2018		2017		2016	
Traveloka.com	45.70%	Traveloka.com	78.50%	Traveloka.com	74.80%
Trivago.co.id	6.50%	Pegipegi.com	2.70%	Tiket.com	10.30%
Pegipegi.com	3.10%	Tiket.com	1.60%	Trivago.co.id	3.70%
Tiket.com	2.80%	Wego.co.id	1.20%	Utiket.com	3.20%

Fig-1: Topbrand Online Travel Agent

Therefore can be concluded that Tiket.com need effective strategy to compete with other online travel agents vendors. Increasing number of people who visiting sites can increase the probability of transaction in Tiket.com. Repurchase intention can be considered

as one of strategy since maintain repeat customers is five time more profitable than acquiring new customers [1]. Repurchase intention as reusing online channels to buy products or services from the same retailer [2]. Online retailers realize that the lack of face-to-face

interaction with retailers and information that is less reliable causes online shopping to face more challenges compared to off-line shopping, including Trust. Repurchase intention in the same e-commerce becomes an important factor, as well as one of the strategies in competing with other online retailers to keep consumers continuing to use e-commerce and increase company profitability [3].

Perceived usefulness is part of TAM (Technology Acceptance Model) stated by Davis [4]. Some researchers conclude that perceived ease of use in a technology will build perception of perceived usefulness [4, 5]. An individual is more likely to continue to use when it brings usability or usefulness. Consumers who have completed their shopping activities more efficiently will be more likely to show stronger repurchase intentions [6]. Customer information can be analysed for a variety of purposes, which increases the risk for customers. That is why customers consider the security of the system as an important factor in e-commerce [7]. Authentication, verification, protection and encryption, as suggested by Kim *et al*. [8], influence the customer security perception. Customers know that their information is collected, recorded and may be used later for undesirable purposes, which is always a concern. Therefore, perceived security is a subjective probability for customers in e-commerce that their financial and personal information [7].

Research Purpose
Overall, the objective of the study is to examine the antecedents of repurchase intention by integrating TAM part namely Perceived Usefulness and Security perception into Trust.

This study has the objectives:
- Analyze the influence of perceived usefulness on trust
- Analyze the influence of security on trust
- Analyze the influence of perceived usefulness on repurchase intention
- Analyze the influence of security on repurchasing intention.
- Analyze the influence of trust on repurchasing intention.

LITERATURE REVIEW AND THEORITICAL FRAMEWORK
Perceived Usefulness
Perceived usefulness is part of TAM theory stated by Davis [4]. Technology Acceptance Model theory was developed at 1989 by Davis which has a purpose of predicting the acceptance of system and behavior of users when using the system. TAM explains that individual behaviour when using a system is affected by perceived ease of use and perceived usefulness. Davis in Sianadewi [9] defines perceived usefulness by "the degree to which someone believes that using a particular system will improve his work performance." Certain benefits or benefits when shopping at an online store. The prceived usefulness is defined as which one believes that the use of certain information systems will improve its performance. From these statements can be concluded that perceived usefulness plays an important role in the intention to behave a person towards a system. This is the basis of authors include perceived factors of usefulness as one of the variables that will be examined in this research [10].

Security
Perceived security is defined as the subjective probability, a perception that consumers feel that their sensitive information will not be inappropriately used by others during the online transaction process [11]. Hartono *et al*. [12] stated that a website with a higher level of security can prevent its consumers from experiencing financial losses due to security issues (e.g. credit card information leak), and this ability to protect its users from potential security threats can be perceived as a long-term benefit by users. A high level of security perception is also believed to bring more comfort to users. Perception of security improves customer trust and that trust leads to repurchasing by customers and brings enormous benefits for companies. Online systems save customer information and also the information concerning their transactions during Internet shopping. Customer information can be analysed for a variety of purposes, which increases the risk for customers. That is why customers consider the security of the system as an important factor in online [7].

Trust
Consumer trust in the internet on an online envirortment occurs because consumers who start to be aroused by their needs and more curiosity in finding information to get what they want. The main concern of marketers is the sources of information that become a reference for consumers and the strong influence of each source is a purchasing decision [13].

Trust factors are a key factor in every sale and purchase online. Only customers who have trust and courage will make transactions through internet media. Therefore, if there is no trust base between the seller and the buyer, there will be no transactions in the ecommerce world, let alone knowing if the product being sold and offered by the seller is a fake product, in the sense that the product sold is still a seller's shadow [14]. Trust plays a key role in online commercial transactions between customers and vendors, especially in the online environment where there are no face-to-face interactions [15].

Repurchase Intention
Repurchase intention can be defined as an individual's willingness to make another purchase from

the same company, based on his/her previous experiences [16]. Repurchase intention is a positive attitude of consumers towards e-retailer that will generate repeat purchases (repeat buying behavior) Zhou [17]. Repurchase intention is that consumers are interested in making a purchase by using online shopping, consumer online shopping will be revisited in the future and consumers are interested in to recommend online shopping because they also use online shopping. From state above can be conclude repurchase as the inclination customers to buy products from the same manufacturer for a long period of time [18].

Theoritical Framework

Based on the research objectives, a literature review on Perceived Usefulness, Security, Trust and Repurchase Intention and analysis of the relationship between dimensions and supported by previous research, the framework of this research is as shown below:
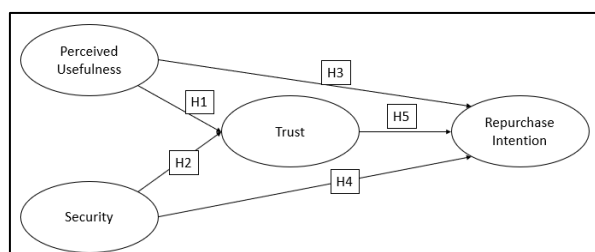

Fig-1: Theoritical Framework

METHOD
Sample and Data collection

Quantitative approach is used in this research with questionnaire technique to collect the data from Tiket.com users. Data analysis is carried out in this study by performing statistical calculations. The design of this study is an explanatory type that is to explain the causal relationship between variables through hypothesis testing. The population in this study was all Tiket.com customers, using a sample of 132 customers. Purposive sampling technique is used and criteria for which are determined that customers have purchased Shopee products at least once.

Measurement

Four instruments are used in this research including perceived usefulness, security, trust and repurchase intention. Perceived usefulness measure by five indicators adopted from Chiu [6]. Four indicators are used to measure security taken from previous study Roca [19]. Trust taken based on Matute [20] which consist of three dimensions namely honesty, benevolence, and competence. Finally repurchase intention is using scale developed by Sullivan [8] consisting four items. The questionnaire is listed in Table 1.

Data collection technique using questionnaire that is measured by Likert scale five point namely Strongly Agree (5), Agree (4), Neutral (3), Disagree (2). Strongly Disagree (1). To test the quality of the data tested the validity and reliability of the instrument using confirmatory factor analysis (CFA).

This research was developed using structural equation modeling (SEM), a multivariate analysis approach which simultaneously used to examine and estimates complex causal relationship among variabl es [13]. This study utilizes AMOS 24 to conduct SEM analysis. This study adopted two steps analysis procedure (measurement and structural model) and maximum likelihood [21].
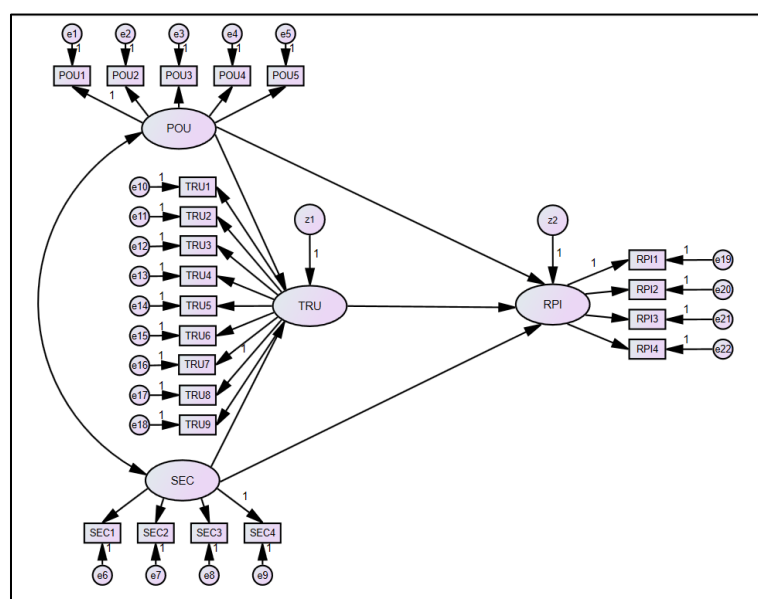
RESULT

Fig-2: Full Model Research in AMOS

Construct Validity and Reliability

Confirmatory factor analysis (CFA) conducted to evaluate the measurement model based on construct validity and construct reliability. Reliability was examined based on the composite reliability values (CR). Table 1 shows that all of the values are above 0.7 [5] and Table 1 shows that all of the AVEs range from 0.59 to 0.84. As a result, results indicate the adequate convergent validity [22].

Construct validity is to examine the factor loadings of each construct. As shown in Table 1 the loading of each indicator on its assigned construct is larger than 0.5 confirming the adequate construct validity of measurement model.

Table-1: Measurement Items

Construct	Item	Factor Loading
Perceived Usefulness (POU) (CR=0,95 , AVE=0,80)		
POU1	The web site improves my performance when searching for and purchasing goods	0.89
POU2	The web site increases my productivity when searching for and purchasing goods	0.93
POU3	The web site makes it easier to search for and purchase goods	0.93
POU4	The web site enhances my effectiveness in goods searching and purchasing	0.91
POU5	The web site is useful for searching for and buying goods	0.81
Security (SEC) (CR=0,93, AVE=0.78)		
SEC1	Ensure Data Safety	0.92
SEC2	Protect Financial Information	0.97
SEC3	Protect from Unauthorized	0.96
SEC4	Protect from Manipulation	0.76
Trust (TRU) (CR=0,96, AVE=0.76)		
TRU1	This vendor usually fulfils his/her commitments	0.81
TRU2	The information offered by this vendor is sincere and honest	0.85
TRU3	I can have confidence in the promises that this website makes	0.82
TRU4	This vendor aims to achieve a situation of mutual benefit with his/her customers	0.86
TRU5	This vendor is concerned with the present and future interests of his/her customers	0.93
TRU6	This vendor would not intentionally do anything that would harm its customers	0.96
TRU7	This vendor has the necessary experience to sell his/her products and services	0.96
TRU8	This vendor has the necessary resources to successfully carry out his/her commercial activities	0.93
TRU9	This vendor knows his/her customers well enough to offer them products and services	0.87
Repurchase Intention (RPI) (CR=0,91, AVE=0,73)		
RPI1	If I were to buy the product again, I would likely to buy it from the same website.	0.85
RPI2	If I could, I would like to reuse to the website for my next purchase.	0.89
RPI3	I intent to revisit the website in the future.	0.90
RPI4	I would like to revisit the website to purchase products in the near future.	0.89

Hypothesis and Model Fit

The overall fit of the model is tested to see the relationship between independent and dependent variables contained in the structural model. Confirmatory factor analysis (CFA) for full model is conducted to test for goodness of fit. The GOF lists utilized as a part of this study are absolute fit indicies and incremental fit indicies. Absolute fit indices used are Root Mean Square Error of Approximation (RMSEA) and CMIN/DF [23]. Meanwhile, incremental fit indices used in this study are Normed Fit Index (NFI) and Comparative Fit Index (CFI) [24]. Table 2 shows Goodness of Fit (GOF) indices of the model.

Table 2 showed that incremental fit indices used in this study are Normed Fit Index (NFI) is 0.88 and Comparative Fit Index (CFI) is 0.931 then Absolute fit indices used are Root Mean Square Error of Approximation (RMSEA) is 0.103 and CMIN/DF value is 2.146. The results of the structural model showed that

there is an acceptable fit between the proposed model and the data.

Table-2: Goodness of Fit

Goodness of Fit index	Cut off value	Model Value
CMIN/DF	≤ 3	2.146
NFI	≥ 0,90	0.88
CFI	≥ 0,90	0.931
RMSEA	≥ 0,08	0.103

Reference: Ali [30]

Hypothesis testing is obtained by examining the path significance. Model estimation for each of the companies is provided in Table 3.

Table-3: Hypothesis Testing

H	Relation	Estimate	S.E.	C.R.	P	Remarks
H1	TRU <--- POU	0.245	0.101	2.424	0.015	**Supported**
H2	TRU <--- SEC	0.689	0.112	6.164	***	**Supported**
H3	RPI <--- POU	0.448	0.084	5.329	***	**Supported**
H4	RPI <--- SEC	0.205	0.095	2.152	0.031	**Supported**
H5	RPI <--- TRU	0.438	0.082	5.334	***	**Supported**

As Shown in Table 3 it can be observed that all the five hypothesized paths were significant at a p value < .05.

The direct effect between perceived usefulness and trust is 0.245 while standard error value ie 0.101 the value of Critical Ratio (C.R) is 2.424 which is greater than 1.96, therefore direct effect between perceived usefulness and trust is significant (H1 supported).

The direct effect between security and trust is 0.689 while standard error value is 0.112. The value of Critical Ratio (C.R) is 6.164 which is greater than 1.96, therefore direct effect between security and trust is significant (H2 supported).

The direct effect between perceived usefulness and repurchase intention is 0.448 while standard error value ie 0.084 The value of Critical Ratio (C.R) is 5.329 which is greater than 1.96, therefore direct effect between perceived usefulness and repurchase intention is significant (H3 supported).

The direct effect between security and repurchase intention is 0.205 while standard error value is 0.095. The value of Critical Ratio (C.R) is 2.152 which are greater than 1.96, therefore direct effect between security and repurchase intention is significant (H4 supported).

The direct effect between trust and repurchase intention is 0.438 while standard error value is 0.082 The value of Critical Ratio (C.R) is 5.334 which is greater than 1.96, therefore direct effect between trust and repurchase intention is significant (H5 supported).

DISCUSSION AND IMPLICATIONS

- The aim of this study is to analyze and investigate factors affecting consumer trust and repurchase intention in online travel agent context. Result reveals that perceived usefulness and security are two key factors affecting consumer trust. Perceived usefulness is based on where people believe that using a particular system will improve their work performance or in the context of this research increasing the level of consumer confidence by using the online travel agent Tiket.com site can improve their travel planning. This is in line with the research conducted by Agag [25] and Benamati [26] which revealed that perceived usefulness can be a precursor or antecedent of the consumer trust. Perceived usefulness plays an important role in adopting technology from conventional to an internet or ecommerce business and fosters consumer trust. A good perception of the usefulness of an online travel agent site is to increase the productivity of consumer travel planning.

- Security has a positive influence on consumer trust. The perception of security in this context is defined as the subjective possibility that consumers feel that their sensitive information will not be misused by others during online transactions and involves many aspects such as payment security, privacy policies and reliability from the vendor itself. This result is in line with the findings of Cui *et al*. [27] which state that the higher the perceived security received by consumers, the higher the level of consumer confidence in a vendor. This result is also in line with Safa [7] research which demonstrates that perceived security has a positive relationship to consumer trust through a clear transaction process and a reliable payment system.

- Perceived usefulness proved to have a positive influence on the interest of consumer repurchases (intention). This is in line with the research of Aren *et al.* [28] which suggested that perceived usefulness is a significant driver of consumers to make repetitive or recurring purchases. Consumers will tend to make purchases or transact again if the process they do feels more beneficial. Perceived usefulness can encourage decision making for customers. The purchase decision in long-distance shopping is certainly based on clear and complete information. To avoid misperceptions, the use of the term should be consistent and the sequence of information on the product description should not be changed [9]. Consumers who have experienced an efficient and useful shopping experience will feel the perception of good use and will encourage them to do the shopping process later. The greater perceived usefulness for consumers, the more likely they are to return and repurchase [6].

- Security has a positive effect repurchase intention. This result is in line with Trivedi's [8] research findings which state that security concerns have a positive influence on the interest of consumer repurchase on e-commerce sites. Security with many aspects such as security in payment methods and identity security is one of the most important factors in online transactions in e-commerce or online travel agent transactions because it contains risks that can harm consumers if something happens with payment data leaks. To improve the perception of security will encourage consumers to make repeat purchases. This is in line with the research of Wen [20] and Safa [7] who found a positive correlation between perceptions of security and interest in repurchase intention.

- In general, consumer trust is seen as a belief from the consumer to the seller related to the seller's good intentions (benevolence), expertise (competence) and honesty or seller integrity (integrity). In the context of online business this is important because there is no direct interaction between the seller and the buyer. Consumer trust will create good confidence in the seller and will increase the tendency of consumers to repurchase. This is in line with the research of [29, 28] which states that consumer trust (trust) has a positive influences to repurchase intention.

Limitations
This study has several limitations. First there are so many other factor can be predictor repurchase intention in online travel agent context. Secondly, our data were collected only in Indonesia mostly Jakarta area. Caution must therefore be exercised when attempting to generalize our results to other locations. Further study expected can be researched from other locations because in different region event country may have different behavior in terms of online buying.

CONCLUSION
Conclusion
From the result of the study can be drawing several conclusions:

- This study developed and tested the model explaining the determinants of consumer trust and it implications to repurchase intentions in online travel agents industry. Repurchase intention can be considered as effective strategy since it has lower cost as acquiring new customers.

- Good perception of the usefulness of an online travel agent site is to increase the productivity of consumer travel planning since traveling might be a complicated condition for some customers especially in business travel occasions. Customer will feel happy if OTA vendors can provide convenience situation by giving him usefulness perceptions. Improve the perception of security can give customer confidence and trust toward OTA vendors and will encourage consumers to make repeat purchases.

- Online Travel Agents vendor must have a very good security system and must be able to convince the customers. Perceived security have direct effect and significant to trust and imply to repurchase intention. Therefore maintaining security is the key factor of online travel agents.

- Trust can eliminate bad perception of customers to conduct online transactions. Therefore trust can be key factor of Online Travel Agents to success in a long term since uncertain situation in online environtment is exists. Consumer trust will create good confidence in the seller and will increase the tendency of consumers to repurchase.

- Our model emphasized the importance role of perceived usefulness and security to build the trust and repurchase intention. Its results should provide useful implications for travel agent practitioners especially in online environtment.

RECOMMENDATION
- Customer tends to coming back again to make another purchase if they feel it beneficial for them. Perceived usefulness play important role by make customer easier to make decision in transactions and increase their performance and productivity since it save their time. Online travel agents (OTA) are providing transportation ticketing and accommodation reservation which mostly customer uses for vacation or business purposes. OTA vendors suggested to provide more simple and easier web or application interfaces and give clear information about the offering product and also can have comparing feature to ease customers make the decisions.

- System security can be built by improving the system which handle personal information and payment system. Payment system will be very critical since is related to customer financial

information and may have risk that can inflict financial loss both sides customer and OTA vendor. It suggests to OTA vendor use the third party professional security to ensure system has the reliable protection. Closely monitor to the system and give a security check and update software periodically also will improve the quality of security system. A reliable security system will reduce risk may happen and give vendor confidence to convincing customer using their platform for business.

- Trust in online environtment is important since no physical interaction between vendor and customer. It is suggest that OTA vendor should adopt transparency policy to build trust with consumers for instance gives the detail of price including tax or other charge might customer will pay in the beginning of product offering. This can be considered as the effort from vendor to show honesty and benevolence.

- This study reveal that perceived usefulness and security have positive signification influence toward trust and repurchase intentions. It is advisable that OTA vendor should pay particular attention to those factors.

- Vendors should build, manage and sustain a long term relationship with customer in order to achieve profitability. Repurchase intention can be considered as the appropriate strategy to achieve it by managing customer trust closely.

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