

**CUSTOMERS' INTENTION ON PURCHASING AIRLINES E-TICKET:
THE ANALYSIS OF ONLINE TRUST AND TECHNOLOGY
ACCEPTANCE MODEL IN GARUDA INDONESIA WEBCOMMERCE**

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ABSTRACT

Abstract: CUSTOMERS' INTENTION ON PURCHASING AIRLINES E-TICKET: THE ANALYSIS OF ONLINE TRUST AND TECHNOLOGY ACCEPTANCE MODEL IN GARUDA INDONESIA WEBCOMMERCE. *This study purposes to examine and analyse customer's intention on purchasing airlines e- ticket with case in Garuda Indonesia's e-ticket. In this study, the factors that effect customers' purchase intention are online trust and Technology Acceptance Model, which consists of perceived usefulness (PU) and perceived ease- of- use (PEOU). The research was conducted at Faculty of Economic and Business University of Brawijaya by using survey methodology. The respondents or sample was choosen as 169 samples based on purposive sampling, which the respondents taken by some criterias. The data were analyzed by using SPSS 19(IBM SPSS 19). The result of this research showed that customers' purchase intention of e-ticketing is effected by perceived usefulness factor. It means that people are more concern with the value they get by buying online ticket than any other factors (online trust and perceived ease- of- use).*

Key words: *E- ticketing, online trust, Technology Acceptance Model, perceived usefulness, perceived ease- of- use, purchase intention, Garuda Indonesia.*

Introduction

PT Garuda Indonesia (Persero) Tbk, publicly known as Garuda Indonesia, is the flag carrier of Indonesia. Garuda Indonesia has been serving the Indonesia archipelago and beyond for 60 years. Garuda Indonesia serves 44 destinations with over 1800 weekly flights. Along with the advancing of technology and needs, selling ticket by online is one of service that offered by Garuda Indonesia Airways in order to increase sales and treat customers to be easier in buying ticket. According to the phenomenon of huge growth of online ticket industry, researcher interest to analyse it, and in this study the concern is about how online trust, perceived usefulness, and perceived ease- of- use influence to purchase intention of e-ticketing.

Researcher had formulated problems that would be solved by this research. And the problems of study are: 1) Do online trusts, perceived usefulness and perceived ease-of-use simultaneously influence the purchase intention of Garuda

Indonesia Airlines' e-ticketing?, 2) Does online trust influence the purchase intention of Garuda Indonesia Airlines' e-ticketing?, 3) Does perceived usefulness influence the purchase intention of Garuda Indonesia Airlines' e-ticketing, 4) Does perceived ease-of-use influence the purchase intention of Garuda Indonesia Airlines' e-ticketing?

Literature Review

E- Commerce

Basically, *e-commerce* can be defined as process of buying, selling, transferring, or exchanging products, services, and or information via computer networks, including the Internet (Efraim Turban: 2006: 5). Many people become addict to buy online because of the effectiveness and efficient that offered by this channel. And online shopping is best for customers who try to keep their shopping simple and short. On other hand, users of internet faced by dilemma when they'll transact online (e-commerce). Trust and privacy became their main challenges.

E-ticketing

Airlines industry is one of industries that had been starting to sell ticket by online. Compared to other industries, e-ticketing was gaining vastly (Sulaiman, Ng, and Mohezar: 2008). E-ticketing is "paper- less' revolution and an innovation of selling ticket. E-ticketing substituted paper- based ticket which the passengers' journey information will be saved in airlines' database. And Sulaiman, Ng, and Mohezar (2008) stated that, "An e-ticket allow authorised travel agents to transmit ticketing information directly to the airlines' database, enabling passengers to check- in and board the flight without showing a paper ticket."

And according to S.S Alam and N.M Yasin (2012), benefit offered by buying online are customers can buy ticket quickly, conveniently and price savings. E-ticketing also eliminates barriers to the availability of competitive ticket price information, intensifies market transparency and gives more power to the e-customer.

Online Trust

Online trust is required factor in most buyer- seller transaction and becomes critical factor for online transaction and e- commerce because of the uncertainly environment and incomplete product information in the internet. Previous researchers found online trust in e-commerce websites is positively associated with e-commerce participation and greater website online trust leads to greater consumer loyalty to that website (Motlaq et al, 2012) .

Consumers' online trust in online environment becomes more crucial in adapting of new technologies, because vendor serves customers in unpredictable manner. An online shopping (e- commerce) has greater risk than the traditional one. Buyers do transaction without meet each other and bigger opportunity for fraud to happen. So, online trust building is needed to reduce consumers' risk

perception and reluctant in purchase intention (Bramal, Shofer, and McKechnie: 2004 in www. arraydev.com: 2011).

Lack of online trust is one of main reason for buyer and seller to avoid trading through online (Gefen et al, (2003 cited in Hong and Cho 2011). So, become trustworthy, reliability, integrity, and kindness are needed in order to build customers' trust, reduce their perceived risk, and then increase their purchase intention over the internet (e-commerce).

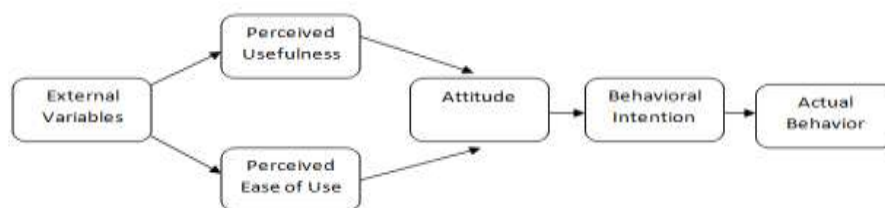
Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is one of the most widely tested models of technology acceptance. In 1989, Davis proposed this model in order to explain potential user's behavioural intention to use a technological innovation. TAM is an instrumental in the development of attitudes (beliefs or perception) that resulted in system utilization behaviour (Davis 1989 cited in Lim and Ting, 2012) and as framework to explain consumer acceptance and usage of the internet as a medium in conducting business (Motlaq et al, 2012). TAM model aimed to identify factors that influence consumers in accepting and using a system developed (Lim and Ting: 2012).

TAM consists of two variables, perceived usefulness (PU) and perceived ease of use (PEOU).

The original TAM is shown by the picture below that was taken from S.Y. Yousafzai et al (2005).

Picture 1 Technological Acceptance Model (TAM)



Source: Davis et al (1989) in S.Y, Yousafzai: 2007

Perceived Usefulness (PU)

Perceived usefulness is determinant of attitude toward use in TAM model. Davis (1989 cited in Mafe, Blas, and Manzano 2009) has defined *perceived usefulness (PU)* as the degree of consumer's believed for a system that can increase their performance of an activity.

Perceived usefulness (PU) means users realize that using a particular system or technology will help his/ her job be better. In order to measure perceived usefulness of a system can be measure by several factors which mentioned by Ndubisi (2003 cited in Kusuma and Pranita 2011), there are: 1) Productivity will

increase by adopting technology, 2) Job performance is increase, 3) Efficiency process of users is increase.

Perceived Ease- of- Use (PEOU)

PEOU means users realize that using particular system or technology will make users realize easy and to operate and their job. It becomes the most consideration when making the purchase decision by users. And PEOU is degree of consumers' believe that using system will ease learning and understanding (Mafe, Blas, and Manzano 2009).

Davis et al (1989 cited in Lim and Ting 2012), PEOU is one of major determinant that affect of a particular technology which it's defined as concentration of physical and mental efforts that user expects to receive when considering the use of technology.

TAM variables (PU and PEOU) become significant because both are the reasons when someone using Information Technology (Hadri and Rendha: 2011). PU and PEOU in an e-commerce can motivate users to use the system regularly.

Purchase Intention

Online purchase intention means as situation where consumer is willing and intends to make online transaction. Online purchase intention resulted of several factors, such as website trust, website satisfaction, and website awareness (Yoon: 2002 cited in Hong and Cho 2011). And Dodds et al. (1991) and Zeithaml (1998) (cited in Lin and Lu: 2010) have defined *purchase intention* as the possibility for consumers to buy a product offered by a tour agency, the possibility for consumers to consider buying a product offered by a tour agency, the possibility for consumers to recommend this tour agency an its products to other, and the possibility for consumers to buy much product (travel purchase context).

Hypothesis

Online trust is a powerful predictor of online purchase intention (Hong and Cho, 2011). Online trust can enhance shopping comfort and reduces the perception that e-vendors' website will engage harmful and opportunistic behaviours, and then customer will meet their expectations about their high perceived usefulness from the web interface (Pavlou: 2003 cited in Ling et al: 2011).

Beside of online trust, previous reseaches has found that Technology Acceptance Model (TAM) which consists of perceived usefulness and perceived ease-of-use, become variable that has big influence to customers' purchase intention of e-ticketing. These three variables has high correlated in affecting the willingness to shop by online. It means that if someone has these three kinds variable, the possibility to buy e-ticketing will be higher.

H1: Online trust, perceived usefulness, and perceived ease-of-use are simultaneously influence customers' purchase intention of Garuda Indonesia Airlines' e-ticket.

Regarding to Jarvenpaa (2000 cited in Hong and Cho, 2011), consumer's trust in an internet store affects their attitude and perceived risk, which influence their willingness to buy. Lack of trust become one of the most frequently cited reasons why consumers reluctant to do some transaction through internet and may refuse to involve themselves in online transaction.

H2: Online trust influences customers' purchase intention of Garuda Indonesia Airlines e-ticket.

Previous researches has found that perceived technology is major determinant in online purchase intention. Kamarulzaman (2007 cited in Ling et al, 2011) stated that simplicity of the web site design will help in adoption of using the website and simultaneously increase intention to use the service (online purchase intention). Technology Acceptance Model (TAM) indicated that behavioural intention is significantly predicted by two salient factors, consumer's perceived usefulness (PU) and perceived ease- of- use (PEOU).

As explained previously, perceived usefulness defined as degree of individual believes that using particular system will enhance their job performance (Davis, 1989). Regarding to Gefen et al (2003 cited in Chen, 2012) that some literates stated perceived technology (PU and PEOU) partly influences the online purchase intention.

H3: Perceived usefulness influences customers' purchase intention of Garuda Indonesia Airlines e-ticket.

Some people may feel uncomfortable when participating new mode of shopping due to their lack of adequate knowledge and skills needed to accomplish their shopping task online. Virtual store fronts should be easy enough for users to use that they can fully explore their useful features. PEOU may positively influence the customers' perception regarding the usefulness of online shopping and their intention to shop online.

H4: Perceived ease- of- use influences customers' purchase intention of e- of Garuda Indonesia Airlines e-ticket.

Research Methodology

Research types used in this research is explanatory research, which taking sample of population and using questionnaire as collecting data tools. Singarimbun (2006: 5) defined purpose of explanatory research is to explain causal relation among variables through hypothesis testing that has formulated previously and get result of how big contribution of each independent variables to dependent variable.

The research aimed to explain how consumers' perception effect purchases intention of E-ticketing (study at Garuda Indonesia Airlines). Respondents of this research is undergraduate students of Economics and Business Faculty of Brawijaya University in Malang.

Data collection technique that applied in this research is distributing questionnaire. *Judgement sampling* is sample which researcher selects sample members by some criterion. In this research, researcher chooses sample members only with those have experienced on accessing Garuda Indonesia site (e-ticketing site). And another criterion is members must be the undergraduated students of Economics and Business Faculty of Brawijaya University.

Sample size is determined by the most pervasive myths summarized as follows (Cooper and Shindler (2003: 190)):

- a. A sample must be large or it is not representative.
- b. A sample should bear some proportional relationship to the size of population from which it is drawn.

The sample size should be several times (preferably 10 times or more) greater than the number of variables in research. And based on the research conducted, there are 4 variables which consist of three independent variables (X) and one dependent variable (Y), which it means for the study sample at least were 4 variables x 10 = 40 samples. But, researcher thought that it was so scantiness and will give not accurate result. So, researcher set to spread 200 quationnaires to 200 respondents with consideration to avoid some biases and higher level of representation of population.

Finding of Research

The questionnaire has been spreaded to 200 respondents, but only 169 questionnaire which filled well without any blank answer. And for the data analysis, this study uses Validity and Reliability test, Classical Assumption Test (Normality Test, Multicllinearity Test, Heteroscedasticity Test), Multiple Regression Analysis, F- Test, and t- Test.

Table 1. The Result of Validity Test

Variable		R	Corr. Value	Explanation
Online Trust (X ₁)	X _{1,1}	0.727	0.672	Valid
	X _{1,2}	0.719	0.689	Valid
	X _{1,3}	0.763	0.6	Valid
	X _{1,4}	0.8	0.52	Valid
Perceived Usefulness (X ₂)	X _{2,1}	0.732	0.569	Valid
	X _{2,2}	0.749	0.536	Valid
	X _{2,3}	0.668	0.688	Valid
	X _{2,4}	0.746	0.542	Valid
Perceived Ease-of- Use (X ₃)	X _{3,1}	0.837	0.792	Valid
	X _{3,2}	0.804	0.828	Valid
	X _{3,3}	0.888	0.736	Valid
Purchase Intention (Y)	Y ₁	0.661	0.673	Valid
	Y ₂	0.706	0.633	Valid
	Y ₃	0.760	0.581	Valid

Source: Data analyzed (2013)

Based on the result of validity test, known that all of instruments in the questionnaire, either independent variable or dependent variable have lower r_{count} than $r_{table}(0,05)$, so it means all of instruments above are valid.

Table 2. The Result of Reliability Test

No	Indicator	Alpha Cronbach	Information
1	Online Trust (X_1)	0.802	Reliable
2	Perceived Usefulness (X_2)	0.778	Reliable
3	Perceived Ease- of- Use (X_3)	0.89	Reliable
4	Purchase Intention (Y)	0.787	Reliable

Source: Data analyzed (2013)

The table above shown the result of reliability test. And from that table, known that Alpha Cronbach value of independent and dependent variable are greater than 0,6 . It means that the instruments are reliable.

Classical Assumption Test

a. Normality Test

Result of normality test is the plot looks normal distribution which the data spread around the diagonal lines and follow the direction of diagonal line. So, it means that residual model variables have normal distribution.

b. Multicollinearity Test

Table 3. Result of Multicollinearity Test

Independent Variables	VIF	Explanation
X_1	1.345	Non multicollinearity
X_2	1.464	Non multicollinearity
X_3	1.459	Non multicollinearity

Source: Data analyzed (2013)

From the table, the result shows that the VIF of each variables is less than 10, so it means that the independent variables are free from multicollinearity.

c. Heteroscedasticity Test

From the result of heteroscedasticity test, the picture shows the plots don't plotted in particular pattern. It spreads above and below 0 on the Y axis, so it means heteroscedasticity doesn't happen.

Multiple Regression Analysis

Table 4. Multiple Regression Analyses Result

Variable	Unstandardized Coefficient	Standardized Coefficient	$t_{arithmatic}$	Significance	Explanation
Constant	1.745		4.811	0.000	Significant
X1	0.076	0.075	0.866	0.388	No significant
X2	0.202	0.192	2.138	0.034	Significant
X3	0.091	0.102	1.137	0.257	No significant

α	= 0.05
R	= 0.303
R ²	= 0.092
F _{calculated}	= 5.563
F _{table}	= 2.66
T _{table}	= 1.97445
Sign.	= 0.000

The interpretation of regression model as follow:

1. Online trust. $\beta_1 = 0.076$

Regression coefficient indicates that there is positive effect between variable X_1 to Y. which means that higher online trust will effect to increase purchase intention of e-ticketing. and vice versa.

2. Perceived Useful (PU). $\beta_2 = 0.202$

Regression coefficient indicates that there is positive effect between variable X_3 to Y. which means that higher perceived usefulness (PU) will increase purchase intention of e-ticketing. and vice versa.

3. Perceived Ease-of- Use (PEOU). $\beta_3 = 0.091$

Regression coefficient indicates that there is positive effect between variable X_4 to Y. which means that higher perceived ease- of- use (PEOU) will increase purchase intention of e-ticketing. and vice versa.

Hypothesis Test

a. F- Test

Table 5. Result of F-test
ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.657	3	1.886	5.563	.001 ^a
	Residual	55.925	165	.339		
	Total	61.582	168			

a. Predictors: (Constant). X_3 . X_1 . X_2

b. Dependent Variable: Y

By comparing $F_{calculated}$ with F_{table} that is $5.563 > 2.66$. it means that there are significant effect happen. In addition. the significance value of ANOVA table is 0.000 which is $< \alpha = 0.05$. By this result. H_0 is rejected. and the online trust (X_1). perceived usefulness (X_2). and perceived ease-of- use (X_3) have simultaneous effect to purchase intention of Garuda Indonesia Airlines' e-ticket (Y).

b. t- Test

**Result of t- Test
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.745	.363		4.811	.000
X ₁	.076	.088	.075	.866	.388
X ₂	.202	.094	.192	2.138	.034
X ₃	.091	.080	.102	1.137	.257

a. Dependent Variable: Y

a. Online trust (X₁) t- test

t- test statistics finds 0.866 with significance value 0.388. And comparing between $t_{\text{calculated}}$ and t_{table} that is $0.866 < 1.97445$ with the significance value bigger than $\alpha = 0.05$. It indicates that H_0 is accepted and H_1 is rejected. It can be concluded that online trust (X₁) doesn't has significant effect to purchase intention of Garuda Indonesia Airlines' e-ticket (Y).

b. Perceived Usefulness (X₂) t test

t- test statistics finds 2.138 with significance value 0.034. And comparing between $t_{\text{calculated}}$ and t_{table} that is $2.138 > 1.97445$ with the significance value lower than $\alpha = 0.05$. It indicates that H_0 is rejected and H_1 is accepted. It can be concluded that peerceived usefulness(X₂) has significant effect to purchase intention of Garuda Indonesia Airlines' e-ticket (Y).

c. Perceived ease- of- use (X₃)

t- test statistics finds 1.137 with significance value 0.257. And comparing between $t_{\text{calculated}}$ and t_{table} that is $1.137 < 1.97445$ with the significance value bigger than $\alpha = 0.05$. It indicates that H_0 is accepted and reject the H_1 . It can be concluded that perceived ease- of- use (X₃) don't have significant effect to purchase intention of Garuda Indonesia Airlines' e-ticket (Y).

CONCLUSION

1. The independent variables that comprised of online trust, perceived usefulness, and perceived ease-of-use are simultaneously influence customers' purchase intention of Garuda Indonesia Airlines' e-ticket.
2. There was no influence of the online trust to customers' purchase intention of Garuda Indonesia Airlines' e-ticket.
3. Perceived usefulness (PU) was influential to the customers' purchase intention of Garuda Indonesia Airlines' e-ticket.
4. There was no influence of perceived ease-of-use (PEOU) to the customers' purchase intention of Garuda Indonesia Airlines' e-ticket.

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