FACTORS AFFECTING CUSTOMER LOYALTY IN BUSINESS E-COMMERCE: A CASE OF INDONESIA

[1]**TOGAR ALAM NAPITUPULU**, [2]**HENDRA CIPTA ADITOMO**

[1]Lecturer, Graduate School, Bina Nusantara University, Indonesia
[2]Former Graduate Student in Management Information Systems, Bina Nusantara University, Indonesia
E-mail: [1]tnapitupulu@binus.edu, [2]hendra_c_aditomo @yahoo.com

ABSTRACT

The purpose of this research is to determine the factors that are first, significantly influence customer satisfaction and secondly, whether customer satisfaction affects customer loyalty including the magnitude of the influence, in e-commerce business. Several factors such as perceived usefulness, perceived ease of use, customer risk perception, customer support, customer trust, promotion, information quality, transaction security, and brand image of e-commerce that influence satisfaction while buying from e-commerce sites were analyzed. Factors such as those mentioned above, which are commonly considered influencing customer satisfaction and customer loyalty through online shopping in other countries were hypothesized to be true in the case of Indonesia. Data obtained by using questionnaire that was distributed to random customers who ever purchased through e-commerce in Jakarta. The method uses Confirmatory Factor Analysis for the measurement model and Multiple Linear Regression analysis to test the structure of the relationship. The results show factors that affect customer satisfaction are: Perceived Usefulness, transactions security, Brand Image of E-Commerce, Information Quality, Customer Support, Customer Trust, and Promotion. Furthermore, customer satisfaction has significant impact on customer loyalty.

Keywords: *E-commerce; Factors; Customer Satisfaction; Customer Loyalty; Regression; Confirmatory Factor Analysis*

1. INTRODUCTION

In Indonesia, the business e-commerce is growing rapidly. The development of e-commerce business bring a variety of effects, one of which is the competition among business e-commerce becomes more stringent. Therefore, it is essential for companies to retain customer loyalty so that the company can continue to survive and thrive. Customer satisfaction is one of the strengths of e-commerce company in order to maintain customer loyalty (Gong-min, 2010).

Currently in Indonesia there are also many business models of e-commerce portal that focuses on providers to sell online such as berniaga, OLX, rakuten, lazada, Blibli, Tokopedia, and so forth. This business model became popular because people have interests to sell either used items and goods that are still new using e-commerce.

However, until now there are many obstacles that make business e-commerce in Indonesia still lagging behind compared to other countries in Asia. There are various limitations such as limited speed internet connection in Indonesia, then consumers are still many who do not trust the security of online transactions, as well as the delivered goods do not appropriate in the picture on the website or damaged (Panji, 2014).

Seeing these limitations and research on e-commerce portal in Indonesia is still few, then the authors would like to examine the factors that can affect customer satisfaction in e-commerce shopping portals in Indonesia. The author also wants to know the significant level of the effect of customer satisfaction on customer loyalty in e-commerce portal in Indonesia. The research conducted consumers who purchased goods or services online using the e-commerce portal and live in Jakarta.

www.jatit.org

2. LITERATURE REVIEW

Electronic commerce (e-commerce) is the buying and selling, and marketing and servicing of products, services, and information through a variety of computer networks. Many companies are now involved in or sponsoring three basic categories of e-commerce: e-commerce business-to-consumer, business-to-business, and consumer-to-consume (O'Brien & Maracas, 2006).

Electronic commerce is a concept of sales and purchases made with the help of the Internet (Chaffey, 2007). But the scope of e-commerce not only include financial transactions but also non-financial transactions such as customer demands for further information (Kalakota & Whinston, 1997). Organizations that use e-commerce has potential access to customers in all parts as long as the customers connected into internet (Aguah & Tucci, 2003).

Business to Consumer E-Commerce has the following characteristics:

• Open to the public, where information is distributed to the public.

• Services are granted general with a mechanism that can be used by public. For example, because the system is in general use, the Web service is provided by using a base web.

• Services are provided upon request (on demand). Consumer and producer initiative must be ready to respond in accordance with the request.

• Approach the client / server is often used where taken assumptions client (consumer) using minimal system (Web-based) and processing (business procedure) is placed on the server side.

Business to Consumer e-commerce has a different problem. Mechanisms to approach consumers today use a variety of approaches such as by using "electronic shopping mall" or using the concept of "portal". Electronic shopping mall using the websites for selling products and services. The sellers of products and services create a storefront that provides a catalog of products and services (service) that it provides. Prospective buyers can browse products and services are available as well as in everyday life by doing window shopping. The difference, prospective buyers can do this shopping anytime and from anywhere he is without being limited by store hours. Example of use of the website for selling products and services include:

• OLX http://www.olx.co.id. OLX is a virtual department store that sells various items through the website.

• Rakuten http://www.rakuten.co.id. Rakuten also a virtual department store that sells various items through the website.

Kotler (2001) defines satisfaction "Satisfaction is a person's feelings of pleasure or disappointment comparing the result from a product's perceived performance (outcomes) in relation to his or her expectations". According to Wilkie (2001), defines satisfaction as an emotional response to the evaluation of the product or service consumption experience. Although customers have been satisfied with a service / product, but is still able to move customers to find better services and products. However, customers who have a high satisfaction with a service / product will tend to settle on the product.

Customer loyalty is defined as: consumers will choose a product with a brand that has given him satisfaction, so there will be a recurring purchases to the brand (Belch, 2007). Winer (2004) argues that if the company can combine the ability to respond and provide good customer demand, as well as engage more intensively by increasing the quality of service according to customer demand, the customer is able to retain customers for the long term.

According to Lin and Sun (2009) in his study in Taiwan using structural equation modeling (SEM), entitled "Factors Influencing Satisfaction and Loyalty in Online Shopping" found that factors contained in the Technology Acceptance Model (TAM) positively affect satisfaction and customer loyalty directly. Technology website provides convenience to customers to save time shopping and generate an efficient shopping experience that effect on increasing customer satisfaction and loyalty.

Hung et al (2014) in his research in Taiwan, entitled "An Approach To Understanding intergrative Customer Satisfaction With E-Services of Online Stores" using correlation and regression test, showed that the perception of risk customers adversely affect customer satisfaction. The greater the risk perception of the customer to a business e-commerce, it will reduce the level of customer satisfaction.

In research conducted by Grace and Sun (2009) found that the quality of service on the website positively influence customer satisfaction and customer loyalty. Therefore, to compete on an e-commerce business, company needed a good quality of services. To achieve this, managers must know in advance the needs and desires of the intended target customers.

Wang and Huarng (2002) identified nine factors that affect the service quality of e-satisfaction. One of these factors is customer support. Customer support is one of the important components in the retail business both online and conventional. In the competitive world of business, good customer support can be used as an added value of a company in the world to compete in the business.

According Chinomona and Dubihlela (2014) in his research in Africa took a sample of data from 173 people and then tested using multiple linear regression, to get the results that customer trust influence customer loyalty. Customers who have believed in a particular store, he would buy back in the store again. Much of the research that examines the influence of customers' confidence in customer satisfaction, but the results are still very varied.

Promotion serves as an sudden attraction for someone in buying a product (Darke and Dahl, 2003; Oliver and Shor, 2003). Promotion on e-commerce can be in variety of forms such as premium accounts, discounts, and free shipping product. Napompech (2014) mentions that prices have an impact on clothing purchases through e-commerce business on social media. Because the online sellers should offer discounts to customers that are interested to visit the website and see the clothes are sold. This can increase the chances of the customer to shop.

Hung et al. (2014) in his study on 105 people in Taiwan using regression and correlation test states that the quality of information on the website has significant influence on customer satisfaction. However, the quality of information on competitors website has no effect on e-commerce customer satisfaction. Good quality information make customers better understand the condition of the product to be purchased through e-commerce. Thus the customer's perception of the hope of the product will be in accordance with the original.

E-commerce can be separated by three risks: the risk of bad business practices, transaction integrity risk, and the risk of information protection. One of the existing consumer protection is the WebTrust services. (Shqiponjë and Elvira, 2012).

According to Lee and Hsieh (2011) in his study mentioned that the brand is one of the factors that affect the level of customer loyalty in the case of timber imports in Taiwan. Customers will usually find a seller who has had a brand that has been known by the public because of the quality and security of transactions is guaranteed. The study was conducted on 205 people by using a questionnaire with methods of structural equation modeling (SEM).

3. RESEARCH METHODOLOGY

This research is finding factors that influencing significantly to customer satisfaction in e-commerce business. In addition the effect of customer satisfaction on customer loyalty will also be examined based on a existing literature. Identification of factors that become hypotheses define from the literature, papers, and discussion forums to become a model of this research. Then, research model is proved empirically in the form of hypothesis testing with the data obtained from the questionnaire.
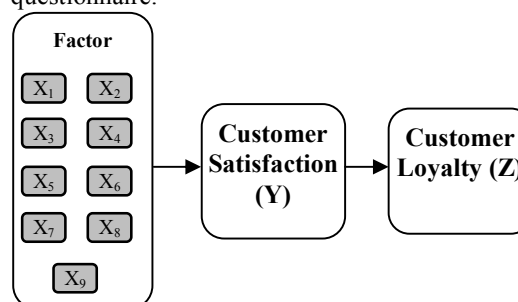

Figure 1.Model Of The Relationship Among Variables In The Research

The eleven variables that is examined in this study will be measured using a operational variables. Once the data is obtained, then the operational variables obtained will be analyzed by Confirmatory Factor Analysis (CFA) to determine their reliability, validity and the value of the latent variables as weighted average of the operational variables.

The measurement items or operational variables were adapted from previous studies and revalidated for this study, i.e., Perceived Usefulness and Perceived Ease-of-use were measured with items adapted from Lin & Sun (2009)[11], measures customer risk perception were adapted from Hung et al. (2014)[5], customer support was measured with items adapted from Wang dan Huarg (2002)[29], the measures for customer trust were adapted from Chinomona dan Dubihlela (2014)[6], the measures for promotion were adapted from Napompech (2014)[6], the measures for information quality were adapted from Hung et al. (2014)[6], the measures for transaction security were adapted from Shqiponjë and Elvira (2012)[6], the measures for Brand Image of e-commerce were adapted from Lee dan Hsieh (2011)[6], the measures for customer satisfaction were adapted from Soelasih, (2004)[6] and customer loyalty was measured with items

adapted from Belch (2007)[13]. The measurement for these conceptual or latent variables was based on a five-point Likert scale with scale anchors from "1" – strongly disagree to "5" – strongly agree. To test the validity of the questionnaires, a pilot survey of 10 respondents was first conducted to ensure that the questionnaire was uniformly understood.

This study takes a population of people who ever do online shopping through e-commerce website portal based in Jakarta. Until now there is no accurate data on the number of people who have shopped through e-commerce portals. However, estimates of the author is 40% of the total population of Jakarta in the amount of 5 million (Fadilah, 2014).

The instrument that used for data collection in this study is questionnaires. Questionnaires are a series of questions where respondents fill in the answers to the alternative approach of their answers. Questionnaire was given to respondents who were sampled from the study population. Questionnaires were conducted via electronic media (www.docs.google.com) as well as through the paper.

The statistical method used to find out the relationship between the variables that affect customer satisfaction is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ... + \beta_9 X_9 + \varepsilon$$

Where :
Y = customer satisfaction,
α = regression constant,
$\beta_1, \beta_2, \beta_3, ... \beta_9$ = regression coefficient,
$X_1, X_2, X_3, ..., X_9$ = independent variables (based on research variable),
ε = error term.

Then to model the relationship between customer satisfaction and loyalty of customers we use the following regression model:

$$Z = \alpha + \beta_{10} Y + \varepsilon$$

Where :
Z = customer satisfaction,
α = regression constant,
β = regression coefficient,
Y = independent variable (based on research variable),
ε = error term.

Furthermore, estimators of β1, β2, β3, ...β9 (regression coefficient) and the CFA were computed using the statistical package SPSS-Amos version 21 and version 20.

The hypotheses for the study are as follows:

Hypotheses 1: There is a positive relationship Perceived Usefulness with customer satisfaction.

Hypotheses 2: There is a positive relationship between Perceived Ease-of-use with customer satisfaction.

Hypotheses 3: There is a negative relationship between customer risk perception with customer satisfaction.

Hypotheses 4: There is a positive relationship between customer support with customer satisfaction.

Hypotheses 5: There is a positive relationship between customers trust with customer satisfaction.

Hypotheses 6: There is a positive relationship between promotion with customer satisfaction.

Hypotheses 7: There is a positive relationship between information quality with customer satisfaction.

Hypotheses 8: There is a positive relationship between transaction security with the transaction.

Hypotheses 9: There is a positive relationship between the brand image of e-commerce and customer satisfaction.

Hypotheses 10: There is a positive relationship between customer satisfaction and loyalty of customers.

4. RESULTS

4.1. Descriptive Analysis

Among the respondents there were 179 (46.74 %) females and 204 (53.26%) males. A majority of the respondents 205 (53.52%) are private sector employees category, A sizeable number, i.e., 205 (53.52%) of the respondents are private sector employee, 85 (22.19%) of the respondents are unemployed (including students), self-employed 60 (15.67%) and 33 (8.62%) are officer respondents.

4.2. Reliability Analysis

Reliability test using Cronbach's Alpha was conducted on most variables to measure the inter-reliability. According to Sekaran et. al. (2009, pp.325)[28] an instrument has an acceptable level of reliability when Cronbach's Alpha is greater than 0.70. From 11 research variables can be seen that all the variables have Cronbach's Alpha coefficients over 0.70 so it can be used for this research.

4.3. Regression Results

The results of the regression models are given in the following equations.

$$KP = 0.281\ PU + 0.211\ CS + 0.174\ CT + 0.082\ PR + 0.188\ IQ + 0.3350\ TS + 0.277\ BI \quad \ldots\ldots\ldots\ (1)$$

$$CL = 1.124\ KP \quad \ldots\ldots\ldots\ldots.(2)$$

Where,

KP	:	Customer Satisfaction
PU	:	Perceived Usefulness
BI	:	Brand Image
CS	:	Customer Support
CT	:	Customer Trust
PR	:	Promotion
CL	:	Customer Loyalty
IQ	:	Information Quality
TS	:	Transaction Security

Further detail of the result of the regression is presented in Table 1, including standard errors (SE) and significancy of the coefficient of the regression in terms of p-value (p).

Table 1. Regression Results

			Estimate	S.E.	P
KP	---	PU	.281	.026	***
KP	---	PEOU	.029	.033	.385
KP	---	PRP	.005	.026	.859
KP	---	CS	.211	.037	***
KP	---	CT	.174	.046	***
KP	---	PR	.082	.041	.047**
KP	---	IQ	.188	.024	***
KP	---	TS	.335	.037	***
KP	---	BI	.277	.034	***
LP	---	KP	1.124	.089	***

*significant at significant level 10 %

**significant at significant level 5%

***significant at significant level 1%

It can be seen from Table 1 that perceived usefulness significantly influence customer satisfaction with p-value $p < 0.01$. Perceived Usefulness is one of the variable of the Technology Acceptance Model (TAM, Lin and Sun (2009)). It is also true that the variable is significantly affecting customer satisfaction in this research.

Perceived ease of use does not significantly influence customer satisfaction with p-value 0.385.

Perceived Ease of Use is one part of the TAM's factor which is the easiness of using the technology. This factor does not significantly influence customer satisfaction in this study may be due to way of shopping at most of e-commerce web portals in Indonesia is almost the same.

Customer risk perception does not significantly influence customer satisfaction with p-value *of* 0.859. According to Hung et al (2014) in his study in Taiwan showed that the customer risk preception significantly influence customer satisfaction. The study result is different with our study may be because of the perception of the risk customer when buying goods through a web portal e-commerce is not proven and customers are mostly satisfied.

Customer support significantly influence customer satisfaction with p-value, $p < 0.01$. This is consistent with research Huarng and Wang (2002).

Customer trust significantly influence customer satisfaction with p-value, $p < 0.01$. In addition, the research conducted by Chinomona and Dubihlela (2014) which states that the trust customers have a significant effect on customer loyalty, customer trust also significantly influence customer satisfaction in this study.

Promotion significantly influence customer satisfaction with p-value, $p = 0.047$. This is consistent with research Napompech (2014). Information quality significantly influence customer satisfaction with p-value, $p < 0.01$. This is consistent with research Hung et al. (2014). Transaction security significantly influence customer satisfaction with p-value, $p < 0.01$. This is consistent with research Hung et al. (2014). Due to its significant influence, transaction security can be considered by e-commerce Company in developing websites. Brand image of e-commerce significantly influence customer satisfaction with p-value, $p < 0.01$. This is consistent with research Lee and Hsieh (2011).

Customer satisfaction significantly influence customer loyalty with p-value, $p < 0.01$. Customer satisfactions itself are influenced by several variables which have been investigated in the above study. Therefore, the entire variables that significantly affect customer satisfaction can be taken into consideration in making policy by company's owner.

In other words, 8 of the hypotheses, i.e., H1, H4, H5, H6, H7, H8, H9, and H10 are accepted, and the other two hypotheses, i.e., H2 and H3 are rejected.

5. CONCLUSIONS

From the results it could be concluded that the factors below in order of the greatest contribution to the very small influence on customer satisfaction in business e-commerce portal is : perceived usefulness, transactions security, brand image of e-commerce, quality information, customer Support, customer trust, and promotion.

From this research, factors perceived ease of use does not significantly affect customer satisfaction. This is because of the way to purchase via the website e-commerce portal are about the same, so that customers rarely encountered difficulties when making purchases. While the perception of risk factors did not significantly affect customer satisfaction because the initial perception of the risks of buying online is not proven. This is because the most of e-commerce website portal in Indonesia are large company that are trusted.

This study also found that customer satisfaction factors have a significant influence and make a major contribution to customer loyalty. So factors that significantly affect customer satisfaction will indirectly affect the customer loyalty and should always be considered by Company in ensuring sustainability of the business as loyalty is the most contributor to sustainability.

REFRENCES:

[1] Aguah, A., & Tucci, C. (2003). Internet Business Models and Strategies. 2nd edition. McGraw Hill.

[2] Alpert, J. (2008). Rich Media, Richer Result. ABI/INFORM Global.

[3] Belch, G., & Belch, M. (2007). Advertising and Promotion: An Integrated Marketing Comminication Perspective. 8th edition. Boston: McGraw-Hill.

[4] Chaffey, D. (2007). E-business and e-Commerce Management. 3rd edition. Prentice-Hall Financial Times.

[5] Chinomona, R., & Dubihlela, D. (2014). Does Customer Satisfaction Lead to Customer Trust, Loyalty and Repurchase Intention of Local. Mediterranean Center of Social & Educational Research, 5(9), 23-32.

[6] Darke, P., & Dahl, D. (2003). Fairness and discounts: The subjective value of a bargain. J. Consumer Psychol, 6(2), 124-131.

[7] Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information. MIS Quarterly, 8(2), 319-340.

[8] Fadillah, R. (2014, 08 02). Retrieved 09 29, 2014, from www.merdeka.com: http://www.merdeka.com/peristiwa/berapa-juta-jumlah-penduduk-jakarta-saat-ini.html.

[9] Gong-min, Z. (2010). Research on customer loyalty of B2C e-commerce. China-USA Business Review, 9(5), 46-52.

[10] Hair, J. F., Tatham, R. L., Anderson, R. E., & Black, W. (1995). Multivariate Data Analysis (4th ed.). Prentice Hall.

[11] Hung, S.-Y., Chen, C., & Huang, N.-H. (2014). AN INTEGRATIVE APPROACH TO UNDERSTANDING CUSTOMER SATISFACTION WITH E-SERVICE OF ONLINE STORES. Journal of Electronic Commerce Research, 15(1), 40-57.

[12] Irawan, H. (2002). 10 Prinsip Kepuasan Pelanggan. Jakarta: PT. Elex Media Komputindo.

[13] Kalakota, R., & Whinston, A. (1997). Electronic commerce. A Manager's Guide Addison Wesley. Reading: MA.

[14] Kotler, P., & Amstrong, G. (2001). Principle Of Marketing, (7th edition). New Jersey: Prentice Hall International Inc.

[15] Lee, J.-y., & Hsieh, T.-W. (2011). Factors Affecting Customer Loyalty in the Taiwanese Imported Lumber Market. Forest Products Society, 61(6), 489-493.

[16] Lin, G., & Sun, C.-C. (2009). Factors influencing satisfaction and loyalty in online shopping: an integrated model. Emerald Group Publishing, Limited, 33(3), 458-475.

[17] Massoud, S. (2002). A COMPARATIVE STUDY OF E-COMMERCE BUSINESS MODELS. Jordan Whitney Enterprises, Inc, 6(1), 39-43.

[18] Miniwatts Marketing Group. (2012, Juni 30). Dipetik Juli 03, 2014, dari internetworldstats: http://www.internetworldstats.com/stats.htm

[19] Napier, A., N. Rivers, O., & W.Wagner, S. (2008). Creating a Winning E-Business. Cengage Learning, 13(2), 2006.

[20] Napompech, K. (2014). Factors Driving Consumers to Purchase Clothes through E-commerce in Social Networks. Asian Network for Scientific Information, 14(17), 1936-1943.

[21] O'Brien, J., & Marakas, G. (2006). Management Information Systems. 7th Edition. New York: McGraw Hill.

[22] Oliver, R., & Shor, M. (2003). Digital redemption of coupons : Satisfying and dissatisfying effects of promotion codes. J. Prod. Brand Manage, 4(2), 95-102.

[23] Panji, A. (2014, 04 06). 4 Tantangan Bisnis "E-commerce" di Indonesia. Retrieved 09 26, 2014, from tekno.kompas.com: http://tekno.kompas.com/read/2014/04/06/1203132/4.tantangan.bisnis.e-commerce.di.indonesia.

[24] Sanusi, S. R. (2010). Beberapa Uji Validitas dan Reliabilitas Pada Instrumen Penelitian. Info Kesehatan Masyarakat, 9(2), 113-116.

[25] Sekaran, U., & Bougie, R. (2010). Research Methods for Business: A Skill-Building Approach. United Kingdom: John Wiley & Sons Ltd.

[26] Shqiponjë, A., & Elvira, A. (2012). E-Commerce and Trust Services Application in Albania. Mediterranean Center of Social & Educational Research, 6(3), 132-137.

[27] Solomon, M. (2009). Consumer Behavior (Buying, Having, and Being) 8th Edition. New Jersey: Pearson Education, Inc.

[28] Sugiyono. (2007). Metode Penelitian Bisnis (10th ed.). Bandung: Alfabeta.

[29] Wang, M., & Huarng, S. (2002). An empirical study of internet store customer postshopping satisfaction. Information Systems, 6(4), 451-458..

[30] Wilkie, W. (2001). Consumer Behavior 2nd Edition. New York: John Wiley & Sons.

[31] Winer, R. (2004). Marketing Management.Second Edition. New Jersey: Pearson Education International.