

Conference Paper

The Effect of Perceived Risk on Repurchase Intention of Online Shopping Mediated By Customer Satisfaction in Indonesia

Heriyana, Jasman J. Ma'ruf, Honeyta P.L, and Syafruddin Chan

Abstract

This study aims to identify and analyze the effects of risk perception in online shopping on the intention of repurchase and test the mediation effect of the satisfaction variable, which mediates the relationship between risk perceptions and repurchase intentions. The dimensions of financial risk, performance, time and psychology are dimensions of the variables identified as perceived risk. In previous studies financial, performance, time and psychological risks can strengthen risk in online shopping. The more customers perceive that a website has a high risk it will be more customers are not interested in repurchasing or re-use the website vendor. Structural equation modeling is used to verify and validate the research model, which is done using partial least square. This research will be conducted in Indonesia by survey method.

Keywords: Perceived of risk, satisfaction, repurchase intention, online shopping, partial least square

Corresponding Author:

Heriyana

heriyana_atjeh@yahoo.co.id

Received: 18 January 2019

Accepted: 24 March 2019

Published: 31 March 2019

Publishing services provided by
Knowledge E

© Heriyana et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the First ELEHIC Conference Committee.

1. Introduction

The tremendous development of e-commerce made online media an alternative distribution channel and also became a new business model for the company. Many companies take advantage of online channels to market their products, whether it's a company that already has high brand equity or a small to medium business, that uses e-commerce to promote and sell its products. This online medium allows consumers or customers to access the various information they need, about the product brand, the comparison of the same product brand variant, the promotions provided, the payment process, and even compare the risks that may be received when customers compare between several online media (called vendors) which has been famous. Web vendors enable e-business to provide accurate, timely, and inexpensive information to customers, and customers can directly compare prices and select suppliers at the lowest possible price. As this

 **OPEN ACCESS**

online retail market becomes increasingly competitive, more and more online sellers distract them from encouraging customers to adopt online channels to motivate customers to buy repeatedly through these channels [1, 2]. But many customers use the Internet to search for product information on retailers' websites, only a small percentage of online purchases due to uncertainty about the products displayed online [3].

Risks associated with possible losses from online transactions are greater than in traditional environments [4, 5]. Unlike an offline retail store, the perceived risk that a customer is dealing with online shopping is greater, because of the inability to interact with salespeople (in other words no question and answer communication) and cannot physically touch, and dependence on electronic payment methods [6]. To avoid greater risk, customers make purchases at familiar vendors. Gefen [7] states that when customers are dealing with unknown vendors, customers pay more attention to privacy (security) and tend to disbelieve unknown vendors. Risks associated with internet transactions are key factors that must be understood and addressed in order for e-commerce to succeed. Therefore, it is important to understand how risks can affect the intent of repeat purchase of consumers in an online context.

All websites provided by vendors or service providers usually contain a variety of information about products that may be of interest to customers, such as variants of electronic brands, cosmetics, household appliances, fashion, furniture and so on, while also providing information about the services provided. Based on the information, the customers will filter the information they need and this makes them more careful because it will compare the website vendors they will choose. This can cause the vendor to fail to meet customer demands that lead to dissatisfaction with the services they offer [8]. Because customers are trying to minimize the risks they may receive, such as products that are shipped out of order, delays, damaged goods, so they are looking for information about vendors they think are most reliable. This can be accessed from the mailing list (online buyer experience) provided by the vendor. So that unsatisfied customers will switch to other service providers.

When customers perceive the risk of buying an online product to be low then the satisfaction rate will be high, causing the buyback to occur. And the opposite happens if the customer perceives the risk of using the website is high then the level of satisfaction will be low so the possibility of customers buying through the same website will be reduced. The perceived risk perceptions by customers here that researchers will use are financial, time, product performance and psychological risks. Therefore, the study in this article aims to identify risk perceptions on re-buy intentions mediated by customer satisfaction in the online market.

2. Literature Review

2.1. Perceived risk

Perceived Risk is a construct that measures the belief of uncertainty about unpleasant possibilities [9]. The perceived risks by customers greatly influence consumer behavior in decision making [10]. The initial perceived risk is simply regarded as product quality fraud [4]. The perception of risk in online shopping is a negative result that customers perceive when making transactions online. Risk perception is assessed as the level of customer assumption of negative results that occur when conducting transactions online [9].

Several dimensions of perceived risks that have been identified by researchers are financial risk, product performance risk, social, psychological, physical and time risk [11, 12]. Financial risks only arise at the time of purchase on the internet [13]. Financial risk can be interpreted as a potential loss of money because the goods that have been purchased are not coming, or the quality of the product does not match the price, the product needs improvement because it does not fit the size. The risk of losing money is a very important factor in e-commerce [14]. Product performance risk is purchased product not working as expected [15]. Social risk is defined as the extent to which the customer believes that he or she will be "judged negatively because of the choice of product (brand)" [16]. Social risk also occurs when adopting incorrect products or services then the possibility of loss of status within a social group of people [9]. Social risk is if the purchase referred by the opinion of family or friends, if the referenced product is not appropriate it will feel ashamed. Psychological risks are consumer frustration by choosing poor products / services [17]. Physical risk reflects consumers' fears of perceiving the product as potentially harmful to consumers [16]. Yen [18] states physical risk reflects a sense of insecurity for purchasing through e-commerce. While the risk of time required to buy the product, the time lost as a result of the failure of the product or service, or must return the product [19]. Chiu, et al. [1] mentions four dimensions of perceived risk, including financial loss, product performance, privacy and product delivery.

2.2. Repurchase intention

The competitive advantage of Internet business is derived from customer loyalty and retention for repeat purchase [20]. Repeated purchases can be defined as reusing online channels to make purchases from certain retailers [21]. The buy back intention

indicates an individual's willingness to make another purchase from the same company, based on previous experience [20]. The desire to buy back is a manifestation of customer loyalty, the quality of online relationships and the perception of website usability have a positive impact on customers' buying interest [2]. In online shopping, to increase the intent of repurchasing customers, sellers often provide additional services as promotions (such as free shipping, free samples or rebates), other incentives, multiple payment options (eg pay by credit card, 0 percent installment, and so on) to all of them to provide superior customer value, in the hope of increasing the intention of buying back customers [22].

In an online purchase, an e-commerce vendor will succeed if the vendor can create a customer through the following two stages: firstly encouraging people to buy online; the second stage is to encourage customers to buy back [2]. This will only happen if the customer is satisfied with the services provided by the online service provider.

2.3. Satisfaction

Satisfaction is one of the determinants to achieve company goals related to customer retention, therefore this construct is one of the most studied in marketing. Satisfaction is the customer's perception of a series of attributes consisting of product or service performance. Customers must be able to be directed at increasing customer retention and long-term growth [23]. According to Chung and Shin [24] the decision of customers to continue or discontinue their relationship with the product or service it is highly dependent on customer satisfaction. In an e-commerce environment, customer satisfaction impacts on retaining old customers and introducing new customers [25]. Alam and Yasin [26] recognize website design, reliability, product variety and delivery performance as an important antecedent of customer satisfaction in online shopping.

Gounaris, et al. [27] states that online shopping is an experience different from traditional off-line shopping in many ways, service encounters, on the one hand, are considered to be interaction experiences with electronic stores (eg site navigation, availability of information and content, graphics). On the other hand, the service process is seen as an experience with service after an electronic sale occurs (eg product shipments, product operations). Thus, one can measure the extent to which the overall customer attitude of being satisfied / dissatisfied or happy / unhappy when shopping online [28].

2.4. Perceived risk and repurchase intention

In online shopping various ways are used, to encourage customers to re-purchase. Higher perceived online risks are often caused by not being able to fully monitor sellers' behavior and / or concerns regarding online shopping security. Once consumers know that online shopping can produce negative consequences, they will avoid these negative consequences by stopping online shopping.

The results of the Srivastava [29] study also show that perceived risk is an obstacle to the use of internet shopping, where time risk greatly weighs on the perception of the overall risk of online shopping channels. The risk of losing time due to slowness to open an image or checkout shopping cart causes user fatigue directly on the internet. Online retailers may also offer a limited payback period or an exchange policy of goods to online shoppers that can encourage adoption by reducing performance risk, security risks and privacy risks weighs relatively lower than the risk of time, performance and social risk. Chiu, et al. [1] in his research suggests that perceived risk has a weak but significant impact on recurring purchasing intentions for experienced buyers, this indicates that risk perception is the main obstacle in online transaction.

2.5. Satisfaction and repurchase intention

Customers who have shopped online then incur the intention to buy back will only happen when the customer is satisfied with the service provided by the service provider vendor. If the product or service brings customers to a high degree of enjoyment and satisfaction, then we can assume that the customer's expectations are met [30]. The direct positive relationship between customer satisfaction and repurchase intention is supported by various research products and services [2, 31–33]. Anderson and Srinivasan [34] show that customer satisfaction with online business has a positive effect on their loyalty. Satisfied customers tend to buy back more in the future than disgruntled customers.

2.6. Perceived risk and satisfaction

Risks perceived by customers such as financial risk, time risk, performance and psychological are types of risks that customers may experience when doing online buying. If all these risks can be minimized will be able to increase customer satisfaction with the vendor of the online service provider, then the customer will intend to make a purchase,

but if customers experience all the risk, it is certain customers will leave the vendor and switch to other vendors who will provide satisfaction for the services provided by the vendor of the website. According to Johnson, et al. [35] customer perceptions arising from online shopping experience affect customer satisfaction rates, the results of his research found that perceived performance, financial and time risk perceptions may affect customer satisfaction, therefore vendors need to minimize these levels of risk.

3. Research Method

Data collection in this study was conducted by survey method, preliminary study was conducted to identify the most frequently used web site by the customers, in addition the researchers also identified the product variants most often purchased by customers in the online market, also identified the product variants that have the most risk high. The sampling technique is purposive, ie those who have made repeat online purchases. Questionnaire is a research instrument used in this study. Validity testing is done by factor analysis ie confirmatory factor analysis, while reliability testing using Cronbach alpha. Partial Least Square Technique (PLS) used to analyze the measurement and structural model. Data for this study were collected from online shoppers in Indonesia who have done online shopping at least three times.

References

- [1] Chiu, C.M., Wang,W,T,G., Fang, Y,H., and Huang, H,Y., (2012), Understanding Customers' Repeat Purchase Intentions in B2C E-Commerce: The Roles of Utilitarian Value, Hedonic Value and Perceived Risk. *Information Systems Journal*, pp.1-30
- [2] Zhan, Y., Fang, Y, Wei. K, Ramsey, E., McCole, P. and Chen, H. (2011). Repurchase Intention in B2C E-Commerce – A Relationship Quality Perspective. *Information and Management*, vol. 48, no. 6, pp. 192-200.
- [3] Kim, J. and Forsythe, S. (2010). Factors Affecting Adoption of Product Virtualization Technology for Online Consumer Electronics Shopping. *International Journal of Retail & Distribution Management*, vol. 38, no. 3, pp. 190-204.
- [4] Wu, J.H. and Wang, S.C. (2005). What Drives Mobile Commerce? An Empirical Evaluation of The Revised Technology Acceptance Model. *Information & Management*, vol. 42, no. 5, pp. 719-29.
- [5] Bezes, C. (2016). Comparing Online and in-Store Risks in Multichannel Shopping.

- [6] Casalo, L.V., Flavian, C. and Guinaliu, M. (2007). The Role of Security, Privacy, Usability and Reputation in The Development of Online Banking. *Online Information Review*, Vol. 31, No. 5, pp. 583-603.
- [7] Gefen, D. (2000). E-commerce: The Role of Familiarity and Trust. *Omega*, Vol. 28, No.6, pp. 725-37.
- [8] Jung, N.Y. and Seock, Y.K (2017). Eect of Service Recovery on Customers' Perceived Justice, Satisfaction, and Word-of-Mouth Intentions on Online Shopping Websites. *Journal of Retailing and Consumer Services*, vol.37, pp 23–30
- [9] Featherman, M.S. and Pavlou, P.A. (2003). Predicting E-Services Adoption: A Perceived Risk Facets Perspective. *International Journal of Human-Computer Studies*, Vol. 59, No.4, pp. 451-474.
- [10] Eggert, A. (2006). Intangibility and Perceived Risk in Online Environments. *Journal of Marketing Management*, Vol. 22, No. 5/6, pp. 553-572.
- [11] Chang, H.H. (2008). Intelligent Agent's Technology Characteristics Applied to Online Auctions' Task: A Combined Model of TTF and TAM Technovation, Vol. 28, No. 9, pp. 564-79.
- [12] Liljander, V., Polsa, P. and Van Riel, A. (2009). Modelling Consumer Responses to An Apparel Store Brand: Store Image As A Risk Reducer. *Journal of Retailing and Consumer Services*, vol. 16, no. 4, pp. 281-290.
- [13] Crespo, Á.H., Bosque, I.R.D and Sanchez, M.M.G.D.L S. (2009). The Influence of Perceived Risk on Internet Shopping Behavior: a Multidimensional Perspective. *Journal of Risk Research*, Vol. 12, No. 2, pp. 259-277.
- [14] Cheng, T., Lama, D. and Yeung, A. (2006). Adoption of Internet Banking: An Empirical Study in Hong Kong. *Decision Support Systems*, Vol. 42, No. 3, pp. 1558-1572.
- [15] Masoud, E. Y (2013). The Effect of Perceived Risk on Online Shopping in Jourdan European. *Journal of Business and Management* ,vol. 5, no.6.
- [16] Semeijn, J., Van Riel, A.C.R. and Ambrosini, A.B. (2004). Consumer Evaluations of Store Brands: Effects of Store Image and Product Attributes. *Journal of Retail and Consumer Services*, vol. 11, no. 4, pp. 247-58.
- [17] Ueltschy, L.C., Krampf, R.F. and Yannopoulos, P. (2004). A Cross National Study of Perceived Consumer Risk Towards Online (Internet) Purchasing. *The Multinational Business Review*, vol. 23, no. 2, pp. 59-82.
- [18] Yen, Y.S (2015) Managing Perceived Risk for Customer Retention in E-Commerce: The Role of Switching Costs. *Information & Computer Security*, vol. 23, no. 2, pp. 145-160.

- [19] Beneke, J., Anne,G., Inge, L and Mallett, K. (2012). The Influence of Perceived Risk on Purchase Intent – The Case of Premium Grocery Private Label Brands in South Africa. *Journal of Product & Brand Management*, 21/1, 4–14. *International Journal of Retail & Distribution Management*, vol. 44, Iss 3 pp.
- [20] Hellier, P., Geursen, G., Carr, R., and Rickard. (2003). J. Customer Repurchase Intention: A General Structural Equation Model. *European Journal of Marketing*, pp. 1762–1800.
- [21] Khalifa, M. and Liu, V. (2007). Online Consumer Retention: Contingent Effects of Online Shopping Habit and Online Shopping Experience. *European Journal of Information Systems*, vol. 16, no. 6, pp. 780-792.
- [22] Wu, L.Y., Chen.K.Y., Chen.P.Y., and Cheng.S.L., (2014). Perceived Value, Transaction Cost, and Repurchase-Intention in Online Shopping: A Relational Exchange Perspective. *Journal of Business Research*. pp. 2768–2776.
- [23] Chen, Z., Ling, K.C., Ying, G.X. and Meng, T.C. (2012). Antecedents of Online Customer Satisfaction in China. *International Business Management*, Vol. 6, No. 2, pp.168-175.
- [24] Chung, K. and Shin, J. (2010), The Antecedents and Consequences of Relationship Quality in Internet Shopping. *Asia Pacific Journal of Marketing and logistics*, Vol. 22, No.4, pp. 473-491.
- [25] Tandon, U., Kiran, R, and Sah, A. (2017). Analyzing Customer Satisfaction: Users Perspective Towards Online Shopping. *Nankai Business Review International*. pp.1-35.
- [26] Alam, S.S and Yasin, N.M. (2010). An Investigation into Antecedents of Customer Satisfaction in Online Shopping. *Journal of Marketing Development and Competitiveness*, vol.5, no.1, pp. 71-78.
- [27] Gounaris,S., Dimitriadis,S., and Stathakopoulos,V. (2010). An Examination of The Effects of Service Quality and Satisfaction on Customers' Behavioral Intentions in E- Shopping. *Journal of Services Marketing*, pp. 142–156
- [28] Sheng. T., and Liu, C., (2010). An Empirical Study on The Effect of E-Service Quality on Online Customer Satisfaction and Loyalty. *Nankai Business Review International*, vol. 1, no. 3, pp. 273 – 283.
- [29] Srivastava. R.T.M. (2015). A Study on The Impact of Consumer Risk Perception and Innovativeness on Online Shopping in India. *International Journal of Retail & Distribution Management*, vol. 43, no. 2 pp. 148 – 166.
- [30] Lin, C. (2014). Factors Affecting Online Repurchase Intention. *Industrial Management & Data Systems*, vol. 114, no. 4, pp. 597-611

- [31] Yiu, C.S. Grant, K. and Edgar, D. (2007). Factors Affecting The Adoption of Internet Banking in Hong Kong – Implications for The Banking Sector. *International Journal of Information Management*, vol. 27, no.5, 336-351.
- [32] Rose, S., Clark, M., Samouel, P. and Hair, N. (2012). Online Customer Experience in E- Retailing: An Empirical Model of Antecedents And Outcomes. *Journal of Retailing*, vol. 88, no.2, pp. 308-322.
- [33] Elbeltagi, I. and Agag, G. (2016). E-retailing Ethics and Its Impact on Customer Satisfaction and Repurchase Intention: A Cultural and Commitment-Trust Theory Perspective. *Internet Research*, Vol. 26, Issue: 1, pp.288-310
- [34] Anderson, R.E and Srinivasan, S.S. (2003). E-Satisfaction and E-loyalty: A Contingency Framework, *Psychology & Marketing*, vol. 20, no. 2, p. 123.
- [35] Johnson,S.Mark, Sivadas, Eugene and Garbarino, Ellen. (2008). Customer Satisfaction, Perceived Risk and Affective Commitment: An Investigation of Directions of Influence, *Journal of Services Marketing*. pp. 353–362