

# Understanding The Effects of Satisfaction and Trust on E-Repeat Purchase Intention: An Ergonomic Approach

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## Abstract

The internet has changed the customer buying behaviour which impact the traditional store practice but provides great opportunity for online retailers. The number of online shoppers is expanding at a promising growth rate as the result of the increasing of number of e-purchase. However, this is not always followed by the increasing number of repeat e-purchases. There are some researches attempt to get more understanding on factors that influence repeat purchase intention. But, still few of them are focusing on factors such as customer review and emotional design in relation to satisfaction and trust. This study intends to investigate how factors such as satisfaction and trust impact the e-repeat purchase intention. The model is an extension of previous model where variables such as satisfaction and trust are not considered. This research will be analysed from ergonomic perspective particularly related to the emotional design. In this research, data is gathered through online questionnaires. The results from 711 respondents are analysed to build structure of a proposed model. The proposed model is then tested by using Confirmatory Factor Analysis (CFA) method and Structural Equation Model (SEM). The result shows that satisfaction and trust have positive impact on the e-repeat purchase intention

## Keywords

Satisfaction, Trust, E-repeat Purchase, and Ergonomic Cognitive.

## 1. Introduction

The growing of Internet has big influence on buying and selling behaviour of modern communities. More and more people are now preferring to buy and to sell product or service through online transaction due to reasons such as save time, mobility, less effort, efficiency and so on. Nowadays, buyers can choose different options of online stores developed by local or international online providers. In Indonesia, for instance, many local and international online platforms are available, including OLX, Tokopedia, BukaLapak, Blibli, MatahariMall, Lazada Zalora, eBay, Elevenia, and Amazon. Most of those online stores is a typical of online marketplace e-business model where buyers and sellers can meet in digital environment to search, buy, display and put prices on the product or service. Another common e-business model is virtual storefront where product/s directly sold to individual customer or individual businesses (Laudon and Laudon, 2000). In this e-business model, customers can search all information about the product then place orders by themselves, through an internet transaction. Over the last decade, the number of e-purchasers has increase significantly which make online business is more attracting.

The increasing number of e-purchasers, however, not necessarily followed by the increase of repeat purchase. Since repeat purchase can bring large potential gain for the e-vendors, it is therefore important to know what factors actually influence the e-repeat purchase intention. Several studies have been conducted to find the answer (Chiu *et al.*, 2012); (Moriuchi and Takahashi, 2016); (Dewi *et al.*, 2018). Some researchers believe factor such as customer review have impact on the buyer's purchasing decision. Online Customer Reviews (OCR) is an electronic word of mouth (e-WOM) in the form of content created in posts on e-vendors or third-party websites (Mudambi, 2010). It is a very important information in product purchasing and selling decisions (Chen, 2008) and helps businesses to reach a critical view of consumers (Dellarocas, 2003). It is also one information that frequently seek by customers that helps the customer to check product or service information before they make the purchasing decision. While OCR is important and has

positive impact on purchasing decision, however, only little is known about the influence of OCR on e-repeat purchase intention.

Another important factor that influence the purchasing decision is the design of e-store website. A good web design is belief could bring a positive emotion to customer during the costumer–computer interaction, as a result will impact the buying decision. Research on emotional design, as one of the Human-Computer Interaction (HCI) issue, attempts to investigate how different aspects of the product design affect the human emotions which then affect human behaviour (Sharp and Rogers, 2007). The impact of website design to different factors such as e-loyalty (Cyr, 2008) and trust (Pengnate, 2017) have been conducted. Most of studies in this area, approaching the issue from marketing and computer science point of view, but, few from ergonomic perspective.

A socio-technical system is an ergonomic focus area that defined as an optimization of organizational and work systems design through consideration of relevant human, technological and environmental variables and their interactions (Hendrick and Kleiner, 2002). From ergonomic perspective, to be succeed in implementing a technology (such as internet business) one should consider interaction among factors including human, technology and environment. In the context of e-businesses, it is belief that the success on online store business will also depend on the acceptance of buyers and sellers on e-business technology. Technology acceptance model (TAM) is a socio-technical system approach used to assess the user acceptance on certain technology. In TAM model the intention to use a technology can be assessed by using factor such as perceived of usefulness, perceived ease of use, behavioural intention to use and actual system use (Davis, 1989). Previous research conducted by Dewi *et al.* (2018) has adopt TAM model in order to investigate how OCR, emotional design and customer intention affect the e-repeat purchase intention. Other factors that could possible affect e-repeat purchase intention need to investigate in order to help online business attract more customer to purchase repeatedly on online store. Moreover, according to Moriuchi and Takahashi (2016), satisfaction and trust have positive impact on e-loyalty. While it is logically accepted, however, the relation between online store visual design to customer satisfaction and trust has not yet been explored. It is, therefore, interesting to know whether satisfaction and trust along with other TAM variables will also influence the e-repeat purchase intention as suggested by previous research.

This study aims to continuing research by Dewi *et al.* (2018) by adding new latent variables, namely, satisfaction and trust to the model. The finding would extend the understanding of factors that influence customer e-repeat purchasing intention. Due to the limitation of study, this research only focusses on three online stores that were available in Indonesia.

## **2. Literature Review**

### **2.1. Ergonomic Cognitive – Emotional Design**

The interaction of human and computer (e.g. software technology) is one of the focus of ergonomic cognitive. Emotional design is an area of Human Computer Issue (HCI) where many researchers interest to get more understanding on how human cognitive works and how it can affect their response in relation to a design. According to Nielsen and Loranger (2006), design factors affect the response and experience of the website user. Thus, knowledge on emotional design can help designer to provide better design to customer. Emotional design can be classified into three level which are visceral, behavioural and reflective level of design. Visceral level design is a level of design relates only to the surface appearance of objects. The responses are not based on past experience or deep semantic knowledge and interpretation. It is easy to recognize because its sensitive to cultural differences, fashion trends and continual fluctuation. The immediate features of the senses will dominate, such as appearance, taste and sound. This is a prime opportunity to install in stores, brochures, and advertisements to get customers. Behavioural design is level of design where skills and routine behaviour are controlled. Behavioural-level design is a subconscious level, learned and includes the physical feel of the object as well as the subjective “feeling of control.” Lastly, reflective design is where pride of ownership, quality, and brand take major roles. Reflective design is conscious and self-aware design (Norman and Ortony, 2006).

### **2.2. E-Commerce**

E-commerce is a digitally enabled commercial transactions between and among organizations and individuals toward the use of the Internet, the Web, and applications (Laudon and Traver, 2014). Similarly, Baum (1999) define e-commerce as a dynamic collection of technologies, applications and business processes that connect companies, consumers and specific communities through electrical and commercial transactions, goods, shipping and information

through the internet. There are several different types of e-commerce and many different ways to characterize them]. Some main types of e-commerce are including Business to Consumer (B2C), Business to Business (B2B), and Consumer to Consumer (C2C). Types of B2C business model are including virtual storefront, information brokers, marketplace creators, transaction brokers, content providers and online service providers (Laudon and Laudon, 2000).

### 2.3. E-Repeat Purchase Intention, Satisfaction and Trust

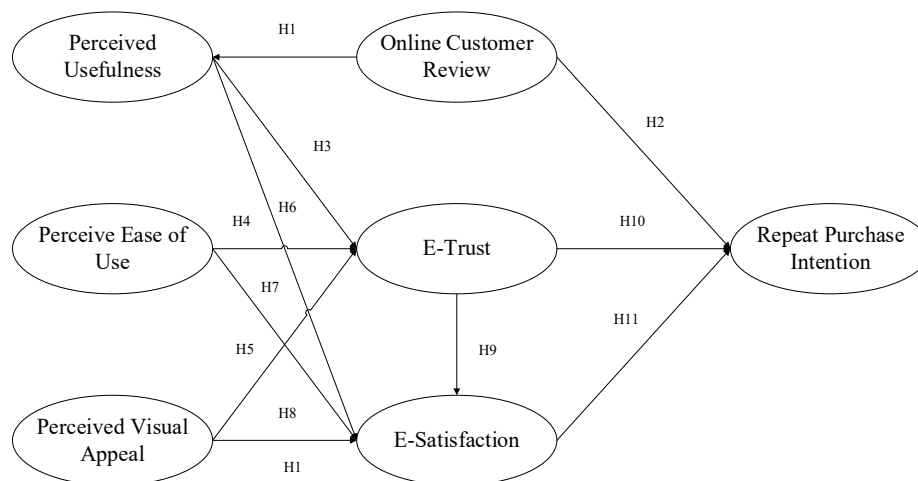
Online business firms have to operate under perfect market circumstances where the competition is commonly tight. In order to retain their customer, the firms need to find alternative ways in differentiating their products and services Srinivasana *et al.* (2002) Loyal customers are mainly reflected by their intention on repeat purchase. In online business practice, terms e-repeat purchase intention is defining as to what extent consumers have a desire to make purchases in the same online store in the future (Mpinganjira, 2014). E-repeat purchase intention has become an interesting research topic lately, as a result of the trend on online business.

E-satisfaction is defining as a perceived experience felt by the user when accessing information from the internet. It is a positive navigation experience and positive perceptions of good website design (Balasubramanian *et al.*, 2003). In addition, Srinivasana (2002) define e-satisfaction as the contentment of the customer with respect to their prior purchasing experience with a given electronic commerce firm. Moreover, Geyskens *et al.* (1996) said that satisfaction have a relation to trust.

E-trust is user's belief in a service or product that has been used and bought from online store. According to McAllister (1995), trust is a cognitive and affective dimension that is not fully understood by the researchers, therefore requires further investigation. Many researchers believe trust is an important factor that will determine consumers purchase decision, but still few is known how e-trust works in influencing e-repeat purchase intention especially from ergonomic cognitive perspective. Trust-commitment theory suggests that trust is one of the important variables for maintaining long-term relationships including a brand (Morgan and Hunt, 1994). In this research, trust becomes one of the latent variables that are used in regard to e-repeat purchase intention. Trust on firm's product or service will certainly provide advantage to the company.

### 3. Proposed Model and Hypothesis

A proposed model is developed based on research by (Dewi *et al.*, 2018). New variables, satisfaction and trust, are now added to the model. Figure 1 shows the correlation between all variables that will be used in this study.



**Figure 1.** Proposed model.

There were eleven hypotheses used in the proposed model and were tested by using Structural Equation Modeling (SEM). The hypotheses were developed based on the main purpose of this study.

- H1: Online customer review has an influence on perceived usefulness related to satisfaction and trust
- H2: Online customer review has an effect on repeat purchase intention
- H3: Perceived usefulness online shop has an influence on trust in online store
- H4: Perceived ease of use online shop has an influence on trust in online store

- H5: Perceived visual appeal online shop has an influence on trust in online store  
H6: Perceived usefulness online shop has an influence satisfaction in online store  
H7: Perceived ease of use of online shop has an influence in satisfaction in online store  
H8: Perceived visual appeal online shop has an influence satisfaction in online store  
H9: Trust has a positive influence on satisfaction  
H10: Trust has positive influence on e-repeat purchase  
H11: Satisfaction has positive influence on e-repeat purchase

#### 4. Data Collection, Analysis and Result

The first research stage is the collection of data where data was collected by applying online questionnaires in Google Forms which distributed through social media. There were 711 respondents who filled the questionnaire which among them 54% were women, and 44% were men. The largest respondent (52%) is from the age group of 21-25 years. While the questionnaires were distributed to different kind of occupation including civil servants, private employees, students, and professionals (e.g. doctor, lawyer, etc.), entrepreneurs, and others, but most of the respondents who filled the questionnaire was students. The research also gathering information regarding to the devices frequently used in accessing the online store which result shows that the more common devices for online transaction were smartphone, followed by personal computer and tablet. The focus of research was on the three most frequent online stores used by the customers that assign with initial T, L, and B. Among those three online stores, online store T was the most frequent online store accessed by the respondents.

The data obtained from the questionnaire is statistically tested by using LISREL software. Initial test was carried out before the hypotheses test, to check the goodness of fit, validity and reliability of all indicators used for the proposed variables. These include 35 indicators that derived from seven variables. The goodness of fit model test is conducted by using seven indexes as parameter including RMSEA, 90% Confidence Interval for RMSEA, NFI, NNFI, CFI, IFI, and RFI. Standardize Loading Factor (SLF) value of each indicator is then calculated to ensure the indicator meets the setting criteria. The result of goodness of fit is presented in Table 1.

**Table 1.** The result of goodness of fit (Hair *et al.*, 2010).

Recommended Value	Goodness of Fit Index	Result	Remark
0.05 - 0.08	RMSEA	0.060	Model Fit
Is expected to be small	90% Confidence Interval for RMSEA	0.051 - 0.057	Model Fit
$\geq 0.90$ (Good Fit)	NFI	0.94	Model Fit
$\geq 0.90$ (Good Fit)	NNFI	0.96	Model Fit
$\geq 0.90$ (Good Fit)	CFI	0.96	Model Fit
$\geq 0.90$ (Good Fit)	IFI	0.96	Model Fit
$\geq 0.90$ (Good Fit)	RFI	0.94	Model Fit

After the goodness of fit test, the process was continued to the validity and reliability test of the model. The t-value is used as the parameter which t-value greater than the table value  $> 1.96$  (at the 5% significance level or 0.005) and the SLF value is  $\geq 0.50$  (Igbaria *et al.*, 1997) are set as the threshold value. From the initial test, the results show that CR1 on variable customer review (CR) was below SLF limit which mean CR1 should be discarded and the second iteration should be conducted by following the same steps but without CR1 indicator was included.

Next, the test was continued to the structural model test, which aims to examine whether all the proposed hypotheses are accepted. The test detects the relationships between variables. The test results were depicted on the path diagram that present in Figure 2. The value of t-value is significant if the value  $\geq 1.96$  with significance 0.05. Whereas the value below the t-value limit is not considered and the hypothesis is rejected. The results of the structural model test can be seen in Table 2 which most of the hypotheses were accepted except H2.

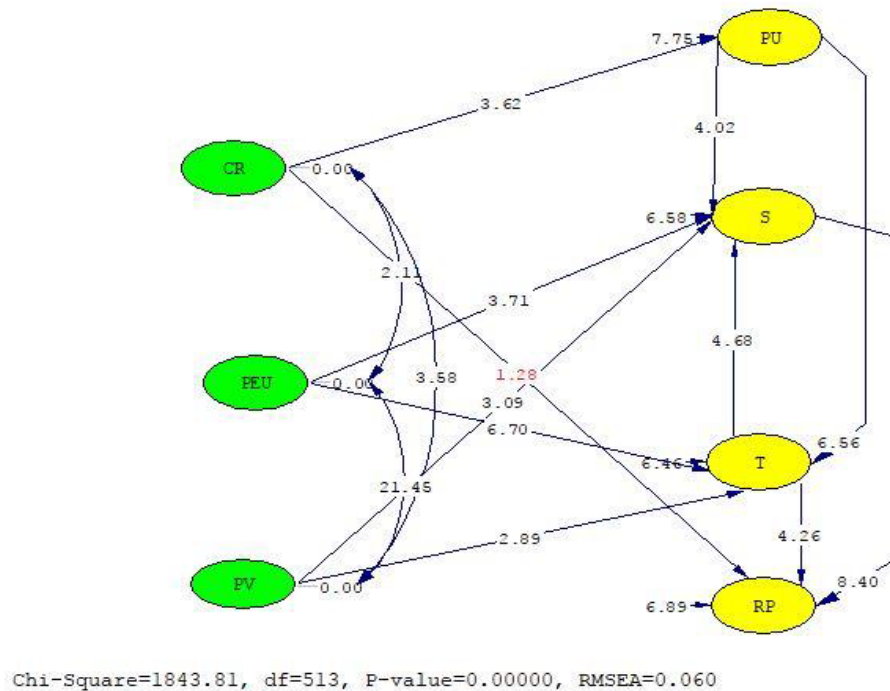


Figure 2. The result of model structural test.

Table 2. Hypothesis test recapitulation.

Hypothesis	<i>t-value</i> ( $\geq 1.96$ )	Information
H1	3.62	Accepted
H2	1.28	<b>Rejected</b>
H3	6.56	Accepted
H4	6.7	Accepted
H5	2.89	Accepted
H6	4.02	Accepted
H7	3.71	Accepted
H8	3.09	Accepted
H9	4.68	Accepted
H10	4.26	Accepted
H11	8.4	Accepted

## 5. Discussion

The results obtained from this research indicate that customer reviews (OCR) significantly affect perceived usefulness (PU) of the online store which confirm the result of previous research. However, OCR does not actually affect the repeat purchases intention to the online stores. This study also found that perceived usefulness has a significant effect on trust and satisfaction of the online store. Moreover, the result also depicts that perceive ease of use (PEU) influence respondents' trust and satisfaction on online stores. This result is slightly different from Pengnate (2017) which states that PEU does not affect trust.

Similar to PEU, perceived visual appeal (PV) also has an influence on consumer trust on online stores. The emergence of trust is due to the convenience during the online transaction. This is in line with Pengnate (2017), who also found that perceived visual appeal and trust have high significance. Visual perception also has an influence on respondent satisfaction. The existence of a good visualization provided by an online store designer could trigger a sense of satisfaction from user. Colours and well-organized menu of online store give customers give good experience to customers that lead to satisfaction.

There is an effect of trust on consumer satisfaction which mean respondents' trust on an online store will also trigger customers satisfaction during the shopping experience. This result similar to (Bricci *et al.*, 2016). The trust on online stores apparently could give effect on repeat purchases intention. This mean that when the respondent has trusted an online store, there is a tendency of customers to repurchase the product /service on online store. Trust could grow because of the good visual design of online store. In addition to that, customer who satisfy with the product/ services provided by the online store, also affect the customers intention to repurchase the product and service in the future.

## 6. Conclusion

In this section some conclusions are presented based on the finding of the research. First, this research was the extension of previous model which aims to find out whether there are any influences of trust and satisfaction on repeat purchase intention. The result shows that both trust and satisfaction significantly influence the repeat purchase intention. Second, this study is also investigating the effect of OCR on repeat purchase intention by considering trust and satisfaction. The result depicts that OCR has no effect on repeat purchase intention since the t-value does not meet the criteria. From Ergonomics cognitive point of view, it is concluded that there is an effect of emotional design on repeat purchase intention. The test shows that there is an effect of visual appeal on trust and satisfaction which influence the repeat purchases intention. For the future research, it is suggested to assess other factors such as cultural, price, place and certain behaviour that influence the repeat purchase intention on online store.

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