FACTORS INFLUENCING ONLINE PURCHASE INTENTION

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Abstract: Nowadays, the popularity of the Internet usage is growing in all businesses, shopping is not excluded. People have changed the way they shop from off line to online. As such, consumer behavior should be explored since the technology especially the Internet has become the mainstream of people lives. Therefore, the research was aimed to determine whether Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risks (PR) has influenced online purchase intention of customers. These three factors were considered when people would decide to shop online. This descriptive research applied the survey method to collect data. A self-administered online questionnaire was voluntarily distributed to respondents via Google Docs and Line Application. The respondents were recruited with the characteristics of being online shoppers. The researchers used the screening question to ask whether they have tendency or have experienced to shop online prior to proceed to the actual questionnaire. Apparently, there were 111 valid data for analysis. The Multiple Linear Regression (MLR) was applied for hypothesis testing to explore whether Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risks (PR) influence online purchase intention. The results revealed that all the three factors statistically significant influenced online purchase intention ($R^2 = .46$, Adjusted $R^2 = 0.45$, $F = 30.53$, $p = .000$). To conclude, respondents felt that to make the online purchasing, the usefulness and ease of use are things to consider; even though there is risk for them.

Keywords: Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), Perceived Risks (PR), and Online Purchase Intention

1. INTRODUCTION

Nowadays, technology has influenced and blended in people lifestyle in many ways, shopping is no exception. Several retailers have been operated over the Internet providing its convenience for customers to purchase merchandise online without travelling to the physical stores. In the physical market, when there are competitions among stores, it cannot be denied that there would be strategies that the stores would use to ensure that they can survive in the business. Such strategies may include ease of payment, speed of delivery, or warrantee of the product (Ellsworth, J., and Ellsworth, M., 1995). Therefore, to attract online shopping customers, online retailers should get better understanding customers’ perceptions towards online purchase intention.

When shopping online, technology is one of the most concern factors that people would think of. Therefore, Technology Acceptance Model (TAM) was applied to the study since TAM is concerned with the factors, which observe acceptance level of new technology or innovation of users (Davis, Bagozzi, and Warshaw, 1989). TAM comprised of Perceived
Usefulness and Perceived Ease Of Use to measure perceptions of customers when they first engaged in new technology whether such technology is useful or easy to use (Davis, 1989). However, shopping online may be riskier than shopping from the physical stores since customers do not have an opportunity to physically see or touch the products, know the location of the stores, or even ensure that they would get the product delivered to them. As such, “risk” can be the other factor that online customers would take to consideration due to the fact that it may lead to perception towards online purchase intention as well. Perceived Risk is defined as something negative happening during a particular purchasing experience (Peter, and Tarpey 1975). All in all, by knowing the factors that influence online purchase intention, the online retailers may effectively be able to improve and enhance their services to customers.

2. LITERATURE REVIEW

2.1 Internet Shopping, E-Retailing and E-Commerce Industry Overview

Nowadays, Internet shopping is a phenomenon, which has been growing. A peep into the exponential growth of the main players in this industry indicates there is still a large reservoir of market potential for e-commerce (Lim, Osman, Salahuddin, Romle, and Abdullah, 2016). Moreover, the advancement of the World Wide Web has resulted in the creation of a new form of retail transactions—electronic retailing (E-Retailing) or Web-Shopping. Thus, the customers’ involvements in online buying have become an important trend. As such, it is vital to identify the determinants of the customer online purchase intention (Ling, Chai, and Piew, 2010). However, web-retailers can only provide certain ranges of merchandise and services to web-shoppers, including e-banking services, technology gadgets, cosmetics, clothing and the booking of airlines ticket assert that web-shopping presents different shopping experiences even when the same products are purchased (Wolfinbarger and Gilly, 2001). Through web shopping, consumers interact in a virtual environment via the website interface (Alba, Lynch, Weitz and Janiszewski, 1997). Therefore, web shopping is perceived to be riskier and therefore trust and risk play prominent roles in online transaction (Featherman and Pavlou, 2001). Furthermore, the quick growth of e-commerce and online transaction motivate many organization to set up business over Internet. Since using Internet to purchase online is still bad in comparison with other online activities, exploring factors that effect on online purchase intention is necessary. In conclusion, Internet Shopping, E-Retailing and E-Commerce are related with the behavioral of the customer who have intention to purchase the products via online so that it also related with the theory of Technology Acceptance Model (TAM) is the underpinning theories involved in investigating factors that affect online purchase intention (Meskaran, Ismail, and Shanmugan, 2013). The theory of Technology Acceptance Model (TAM) is consist of Perceived Usefulness (PU) and Perceived Ease Of Use (PEOU) and also Perceived Risk (PR) are independent variables in this studied.

2.2 Technology Acceptance Model (TAM)

The theory of Technology Acceptance Model (TAM) is an assessment of user’s technology acceptance, which is measured by the intention and the influence of attitude, Perceived Usefulness, Perceived Ease Of Use toward the intention to use (Davis et al., 1989). In addition, the theory of Technology Acceptance Model (TAM) is playing a role of E-Shopping which is one of the new retail innovations and makes use of innovative technology systems, and e-
shopping behavior (e.g. browsing, transaction, etc.) is a type of consumer usage system. Next, there are several researchers are mentioned about the theory of Technology Acceptance Model (TAM) is provided a useful foundation for research investigating consumer acceptance of online shopping (Ha and Stoel, 2009). Moreover, the theory of Technology Acceptance Model (TAM) is investigated the acceptance of user of different technologies such as: word processors, spreadsheets, e-mail, voice mail, and telemedicine technology (Koufaris and Hampton-Sosa, 2004) and another researcher is described about the theory of Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology (Glass and Li, 2010). Then, the theory of Technology Acceptance Model (TAM) is a widely used model by researchers and practitioners to understand and explain user acceptance of information technologies based on the function of Perceived Usefulness (PU) and Perceived Ease Of Use (PEOU) (Venkatesh, and Davis, 1996). Finally, the theory of Technology Acceptance Model (TAM) is the underpinning theories involved in investigating factors that affect online purchase intention (Meskaran et al., 2013).

Since Davis (1989) stated that TAM includes Perceived Usefulness (PU) and Perceived Ease Of Use (PEOU), the following section elaborates the factors of TAM and Perceived Risks (PR) and their relationships towards online purchase intention.

2.3 Perceived Usefulness (PU) and Online Purchase Intention

Perceived Usefulness (PU) is identified as the degree to which a person believes that using a particular system would enhance his job performance (Davis, 1989). It also refers to represents the user’s assessment about the utilitarian benefits of system utilization such as the system’s facilitation of effectiveness and efficiency in the accomplishment of a specific task (Gefen, Karahanna, and Straub, 2003; Venkatesh, 2000). In addition, Perceived Usefulness (PU) is defined as attitudes toward using an online buying system will enhance behavioral intention (Cheng, S. Y., Tsai, Cheng, N. C., and Chen, 2012). Moreover, Tong (2010) identified Perceived Usefulness (PU) as the degree to which a person believes that using a new technology would enhance his performance or productivity. However, Davis et al. (1989) argued that the theoretical foundations for Perceived Usefulness as a predictor of usage behavior are derived from several diverse research streams, including self-efficacy theory, a cost-benefit paradigm, and adoption of innovations research.

As a result, Perceived Usefulness (PU) has positive relationship Online Purchase Intention for Taiwanese’ customers as mentioned in Cheng et al. (2011) study. In addition, it was also found that Perceived Usefulness (PU) has significant effect with Online Purchase Intention for online booking in Hong Kong (Kucukusta, Law, Besbes, and Legohérel, 2015). As Tong (2010) also mentioned, Perceived Usefulness (PU) also has positive effect with Online Purchase Intention for online shopping experience in USA.

2.4 Perceived Ease Of Use (PEOU) and Online Purchase Intention

Perceived Ease Of Use (PEOU), Davis (1989) identified as the extent to which a person believes that using a new technology would not require physical and mental effort and refers to the user’s assessment of the extent to which understanding, learning and operating a specific system would be free of the physical and mental effort. It also refers to as a person belief that
using a particular system will be free from effort (Cheng et al., 2012). The theory of Technology Acceptance Model (TAM) further suggests that Perceived Ease Of Use (PEOU) is instrumental in explaining the variance in Perceived Usefulness (PU) (Davis et al., 1989). As a result, Perceived Ease of Use (PEOU) has positive relationship with Online Purchase Intention for Taiwanese’ customers (Cheng et al., 2011). In addition, it was also found that Perceived Ease Of Use (PEOU) has significant effect on Online Purchase Intention for online booking in Hong Kong (Kucukusta et al., 2015). Furthermore, Perceived Ease Of Use (PEOU) is also proven that it has positive effect on Online Purchase Intention for online shopping experience in USA (Tong, 2010).

2.5 Perceived Risks and Online Purchase Intention

Perceived Risks (PR) refers to the expected probability of something negative happening during a particular purchasing experience, indicating the consumer’s uncertainty about the consequences of their choice (Peter, and Tarpey, 1975). It also refers to expectation of financial, performance, psychological and time/convenience risk by an internet shopper in planning a particular online purchase (Forsythe and Shi, 2003). The Perceived Risks (PR) is a construct that measures beliefs of the uncertainty regarding possible negative consequences (dangers) as stated by Featherman and Pavlou (2003). Forsythe and Shi (2003) confirmed that Perceived Risks (PR) is associated with online purchasing showed that consumers perceived higher risks online than offline because the internet is open and complex in nature and the technology is beyond the users’ control. Moreover, Perceived Risks (PR) in the online retailing context can be defined as the subjectively determined expectation of financial, performance, psychological and time/convenience risk by an internet shopper in planning a particular online purchase (Forsythe and Shi (2003). Therefore, Perceived Risks (PR) plays a critical role in consumer decision-making and behaviors (Mitchell, 1999). As a result, Perceived Risks (PR) was found to have direct effect with Online Purchase Intention for online shopping in India (Srivastava, 2015). In addition, it also found that Perceived Risks (PR) has positive direct relationship with Online Purchase Intention for internet experience (Soto-Acosta, Molina-Castillo, Lopez-Nicolas, and Colomo-Palacios, 2014). Furthermore, Perceived Risks (PR) has significant impact with Online Purchase Intention for stimulus-organism response model (Kim, and Lennon, 2013).

According to Salisbury, Pearson, R.A., Pearson, A.W. and Miller (2001), online purchase intention is defined as a measurement of the strength of a consumer’s intentions to perform a specified purchasing behavior via the internet (Salisbury et al., 2001). In addition to that it also defined as a consumer’s positive or negative feelings about performing the purchasing behaviors on the internet (Schlosser, 2003).

3. METHODOLOGY

The research has set up the research question, objective, and hypothesis as follows.

3.1 Research Question
Do Perceived Usefulness, Perceived Ease Of Use, and Perceived Risks influence Online Purchase Intention?
3.2 Research Objective
To identify whether Perceived Usefulness, Perceived Ease Of Use, and Perceived Risks influence Online Purchase Intention.

3.3 Hypothesis
H₀: Perceived Usefulness, Perceived Ease Of Use, and Perceived Risks do not influence Online Purchase Intention.

According to the research question, research objective, and hypothesis were framed, the conceptual framework was developed as follows. The independent variables included Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risk (PR), while the dependent variable was online purchase intention.

3.4 Conceptual Framework

![Conceptual Framework of the study](image)

3.5 Population, Sample, and Sample Size

**Population**
The target population of this research was customers who have intention to purchase online products.

**Sample**
The sample was potential online shopping customers who would shop online from the website over the Internet. The respondents were recruited from the office employees through the researcher personal contact nearby shopping department center in Rama IX area. The non-probabilistic sampling, judgment sampling technique was applied to the recruiting process.

**Sample Size**
The appropriate sample size to ensure that the result can be generalized to the population, the research applied the general rule of thumb of sample size from Wilson Van Voorhis, and Morgan (2007). They demonstrated that for the Multiple Linear Regression analysis, the sample size should not be less than 50. In the combination of the formula of Green (1991), he provided a comprehensive overview of the procedures used to determine regression sample sizes as N > 50 + 8 m; where N = the number of sample size, and m = the number of independent variable(s). Since the research has 3 independent variables, which are PU, PEOU, and PR, the
sample size needed was not less than 74. Therefore, the researcher collected the data from 110 respondents.

3.6 Research Instrument and Measurement
A self-administrated online questionnaire was used in this research. The questionnaire comprised of 3 parts. Part 1 was asked about respondents’ perceptions towards PU, PEOU, and PR, while Part 2 asking about respondents’ perceptions towards online purchase intention. The questionnaire items were adapted and modified from the study of Tong (2010). Both parts of questionnaire, the respondents were asked to indicate the degree of agreement of each question on a five Likert scale ranging from 5 = Strongly Agree to 1 = Strongly Disagree. For the last part, Part 3, the Personal Information including Gender, Age, Education Level, Occupation, and Monthly Income were also collected.

3.7 Reliability
The reliability of the research was calculated with the sample of 30 respondents to test the internal consistency of the items. The Cronbach’s alpha Coefficient value was shown in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness (PU)</td>
<td>0.92</td>
</tr>
<tr>
<td>Perceived Ease Of Use (PEOU)</td>
<td>0.90</td>
</tr>
<tr>
<td>Perceived Risks (PR)</td>
<td>0.75</td>
</tr>
<tr>
<td>Online Purchase Intention</td>
<td>0.89</td>
</tr>
</tbody>
</table>

It was confirmed that all variables earned the Cronbach’s alpha value of higher than 0.70, which were above the general 0.70 threshold for acceptability (Morgan, Leech, Gloeckner, and Barret, 2004). Therefore, the questionnaire was deemed reliable and sufficient for examining the research hypothesis (Morgan et al., 2004).

3.8 Collection of Data
Non-probability sampling, convenience sampling technique was implemented in this research. The procedures recruited people who are conveniently available and willing to participate in the study. The informal screening question was applied to screen and select respondents. The question was “Have you ever thought or bought things online?” Only people who answered “Yes” were selected to participate in the research.

The total of 111 online questionnaires were delivered via Google Docs and Line Application to the respondents who have potential to shop online. The online questionnaires were sent to respondents’ e-mail and Line ID since the respondents were recruited through personal contact of the researcher.
4. RESULTS AND DISCUSSION

4.1 Personal Information

From 111 valid online questionnaires, the majority of respondents were female, which was accounted for 42.86%. Additionally, the majority of the respondents were at the age group of 23-30 years old, which accounted for 67.86% of the total respondents. 79 of them were Bachelor’s Degree holders, while 63 respondents were Private Employees and 35 respondents earned income range of 20,001-25,000 Baht per month.

4.2 Hypothesis Testing

The Multiple Linear Regression (MLR) analysis was conducted to evaluate how well Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risks (PR) do significantly influence in Online Purchase Intention.

Table 2: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.68</td>
<td>.46</td>
<td>.45</td>
<td>30.53</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Perceived Usefulness (PU), Perceived Ease Of Use (PEOU) and Perceived Risks (PR)
b. Dependent variable: Online Purchase Intention

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients (Beta)</th>
<th>Standardized Coefficients (Beta)</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.26</td>
<td>0.00</td>
<td>0.10</td>
<td>0.917</td>
</tr>
<tr>
<td>Perceived Usefulness (PU)</td>
<td>0.28</td>
<td>0.23</td>
<td>2.04</td>
<td>.043</td>
</tr>
<tr>
<td>Perceived Ease Of Use (PEOU)</td>
<td>0.59</td>
<td>0.49</td>
<td>4.49</td>
<td>.000</td>
</tr>
<tr>
<td>Perceived Risks (PR)</td>
<td>0.03</td>
<td>0.03</td>
<td>0.43</td>
<td>.668</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Online Purchase Intention

The predictors were Perceived Usefulness (PU), Perceived Ease Of Use (PEOU) and Perceived Risks (PR), while the criterion variable was in Online Purchase Intention.

The Multiple Linear Regression (MLR) analysis of PU, PEOU, and PR statistically significant influenced online purchase intention \([R^2 = .46, \text{Adjust } R^2 = 0.45, F = 30.53, p = .000}\].

Therefore, the null hypothesis was rejected. The Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risks (PR) influence online purchase intention. The \(R^2\) was .46, which indicated that 46% of independent variables can be accounted for by the dependent variable.

The Beta values were the weights associated with the regression equation. According to the Beta weights, the regression equation was as follows:
Online Purchase Intention = 0.26 + (0.28_{\text{Perceived Usefulness}}) + (0.59_{\text{Perceived Ease Of Use}}) + (0.03_{\text{Perceived Risks}}) Or \hat{Y} = 0.26 + 0.28X_1 + 0.59X_2 + 0.03X_3

5. CONCLUSION

From the result, it could be concluded that when purchasing merchandises online, respondents take Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risks (PR) altogether to consideration.

From the individual variable, the Perceived Usefulness (PU), and Perceived Ease Of Use (PEOU) revealed statistically significant influenced to Online Purchase Intention (p-value = 0.043, and 0.000 respectively).

However, Perceived Risks (PR) did not reveal the statistically significant influenced towards online purchase intention individually (p-value = 0.668). The finding was supported by the previous study of Gupta, Kim, and Li (2005); Sam and Tahir (2009); and Gupta and Kim (2010), which found that Perceived Risks is not significant with Online Purchase Intention. Perceived Risks (PR) is a customer’s perception of the uncertainty and adverse consequences of conducting transactions with a vendor (Cho, 2006). In addition, the association of Perceived Risks (PR) and online purchasing showed that consumers perceived higher risks when purchase merchandises online comparing to buying offline since the Internet is open and complex in nature and the technology is beyond the users’ control (Forsythe and Shi, 2003). Therefore, the online customers may already recognize and realize that risks could happen at all times when they have online transaction. However, with the changing of lifestyle, people feel that they can accept that risk. People may trade such risk with the convenience of the purchasing merchandise online to reduce the travelling cost and save time from store to store to buy goods. As the result, this could be the reason that the perceived risk did not find significant influence towards online shopping intention.

In terms of the Beta (β) values, Perceived Usefulness (PU) has the beta value of 0.28, Perceived Ease Of Use (PEOU) has the beta value of 0.59, while Perceived Risks (PR) has the beta value of 0.03. Therefore, it can be assumed that Perceived Ease Of Use (PEOU) was the most influence factor of respondents when they intend to purchase merchandise online. As the result, the notion of easy to use of the website comes first to customers’ minds. On the other hand, Perceived Risks (PR) was the lowest influence factor to respondents for their online purchase intention. This can be assumed that even though customers know that there are risks when shopping online, but risks do not quite bother intention to shop online of the respondents. In other words, Perceived Risks (PR) did not much influence respondents’ intention to shop online.

5.1 Limitation and Recommendations for Further Research
This research examined only in three selected variables which were Perceived Usefulness (PU), Perceived Ease Of Use (PEOU), and Perceived Risks (PR), which may not cover other aspects that influenced Online Purchase Intention. Thus, other factors such as Sales Promotion, Discount, Coupon, and Rebate may be studied.
In addition, the studied conducted in the online business only. Therefore, the physical stores may conduct similar study to explore the influence towards customer purchase intention. The factors may include product display, personal selling skills, and product knowledge.

REFERENCES


