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KEY FACTORS AFFECTING PURCHASE INTENTION IN E-COMMERCE

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ABSTRACT

Thailand E-Commerce market has progressively grown in the last decade. However, most Thai consumers still hesitate to complete online transaction because of their perceived risk and lack of trust in Thai vendors. This paper aims to investigate the structural model which pertains to the perceived risk and lack of trust that affect Thai consumers. The purpose of this study is to understand the main factors that affect consumers' purchasing intention in both perceived risk and trust.

Key words: *E-commerce in Thailand, Online marketing, Purchasing intention, Perceived risk and Trust*

1. INTRODUCTION

During 2000-2010, the advancement of the Internet has considerably influenced both human lifestyles and business management. The Internet makes it possible to connect people around the world. As the consumers became more comfortable and actively involves with one another, they began to use the Internet to access the information from anytime and anywhere [20]

According to report of Internetworldstats, The total number of global Internet users in 2010 was over 2 billion; an increase by approximately 20% compared to 2009. In Thailand, there were around 24 million Internet users or about 40% of the population. The large number of Internet users opened up wide opportunities for Thai entrepreneurs and businesses. The Internet has allowed them to reach wider audiences and deliver their products and services to customers worldwide.

However, majority of Thai consumers still hesitate to make purchases via the Internet due to two main reasons. First, the concern of the risk involve with the "online" transaction

Second, the lack of trust in the Thai e-commerce vendors. In general, Thai consumers are more concerned with the risk involved in conducting an online transaction and they do not trust most of the Thai vendors that offer their services online. Hence, although the numbers of the Internet users have increased, the size of E-commerce market in Thailand, particularly in B2C, has surprisingly diminished over the past few years. [21]

Therefore, this paper aims to investigate the factors that influence a lack of trust and the perceived risk amongst Thai consumers, which impeded the growth of E-commerce market. The rest of this paper is structured as follows. First, relevant literatures are reviewed. Second, research methodology is delineated. Third, analysis results are presented. Finally, discussions and recommendations are made for Thai entrepreneurs concerning their e-commerce strategy to develop trust.

2. LITERATURE REVIEWS

Since this study aims to investigate factors affecting perceived risk and trust, Theory of Reason Action (TRA) by Ajzen and Fishbein is considered a good start. Ajzen and Fishbein stated that the actual human behavior is influenced by beliefs, attitude and intention. [1]

For this study, we investigated the effects of attitude (perceived risk and trust) concerning behavior to intention for the behavior (intention to buy).

Perceived risk

Yoon (2002) says that due to the difference between online store and conventional store in location, staff, and emotion in purchasing, consumers can't consider quality and service of product through the online store. This leads to worry in product purchasing and later become to risk. [33]

Kim et al. (2008) point out that different purchasing channels make the customer's purchasing intention of product and service varies. Customer believes that the purchasing from traditional store, such as Wall Mart, will enable customer to walk around the store, touch, and test the product before making the purchase decision. So, this kind of store can reduce perceived risk while internet store's customers have to provide their personal data namely address, telephone number, and credit card data. This makes customers feel more risk in online transaction than conventional purchasing channel and causes the decrease in the intention to buy. Therefore, perceived risk has a negative impact on online transaction. [15] In addition, Park et al. (2005) and Vijayarathy and Jones (2000) say that the customer's perceived risk has a negative impact on website and is a significant factor of purchasing decision via internet. [24] [30]

In summary, perceived risk relates to desire and intention to do the online transaction, leads to the hypotheses as below.

H1: Perceived risk negatively affects intention to buy the product and service.

Trust

Liu et al. (2005) says that one of the tools that the internet store should value to reduce customer's concern and worry about product purchasing is building credibility. The intention to buy will increase when customers trust sellers. [19] Consequently, trust is not only the factor benefiting the conventional channel, but also the significant driver in creating the intention to buy via online store [8]

Furthermore, Kim et al. (2008) says that trust relates to the purchase intention. If the customers have a high trust in the online seller, they will have a high intention to do the online transaction. [15]

In summary, trust relates to the intention to purchase the product via internet, leads to the hypothesis as below.

H2: Trust positively affects intention to buy the product the product and service.

However, There are many studies, including Kim (2005) , Kim et al. (2008), and Walczuch and Lundgren (2004) [14] [15] [31], collecting and classifying the antecedent factors that can manage the risk and help creating the trust of customer in product and

service purchasing via internet into 4 categories, which are:

1. Cognition-based factors are factors that emerged inside the person through watching, hearing, and touching the website directly. These factors include information quality, privacy and security protection, system reliability, and web interface design.

2. Affect-based factor are factors that emerged from hearing other person's opinion which is the indirect interaction. These factors include web reputation, recommendation, and positive E-Word of mouth.

3. Experience-based factor are factors that emerged from experiencing since the past to the present and is also an experience that related with the website or the online purchasing such as internet experience.

4. Personality-based factor are factors that emerged from personality and personal behavior such as shopping style.

In this study, the researcher desires to select the cognition-based factor including information quality, privacy and security protection, and web interface design and also chooses the affect-based factor including web reputation and positive E-Word of mouth.

The researcher selects these two factors to study the effect of customer's perceived risk and trust of the online store that affecting the purchase intention because these factors are easy to control and implement, which are different from the experience-based and personality-based factor that emerging from the person and hard to control. [15]

Furthermore, the positive E-Word of mouth factor also is the additional factor from the past study because the study in the relationship between the positive E-Word of mouth and the perceived risk and trust that affecting the purchase intention via internet is not concrete enough. Also, it is the factor that has the greatest effects on the purchase intention via internet [22] and it is the first priority of entrepreneur and marketer in creating the business strategy. [3] All of these lead to the interesting of this research.

Thus, as a result of decreasing perceived risk and increasing trust, other related factors will be added with a total of five factors separated into two parts: cognition-based and affect-based factors. The first set of variables composes Information Quality, Perceived Privacy and Security Protection and Web Interface Design. The second set composes Web Reputation and Positive E-word of Mouth.

2.1 Cognition-based factors

Information quality

Information Quality is the customer perceptions when they visit and access to e-commerce website. For example: company profile, members and teams, corporate policy etc. [15] It is a critical factor for building initial trust in shopping website. [27]. Consequently, Information Quality has a positive relationship with trust. [18] Furthermore, the high level of Information Quality decrease Uncertainty and Risk perceived by customers who conducted an internet transaction on an e-commerce site. [15] In addition Park and Stoel (2002) found that product and service information in apparel shopping website, for example size, price and color, etc., can help alleviate customers' anxiety. Consequently, Information Quality efficiently decrease perceived risk which has a mutually negative relationship. [25]

Based on the above literature review, the following hypotheses are proposed.

H3a: Information Quality negatively relates with perceived risk.

H3b: Information Quality positively relates with trust.

Perceived privacy and security protection

The second factor is Perceived Privacy and Security. Privacy and security problems concern the acts of violations without owner's permission in personal data and information. The problems have occurred more often, and companies should pay careful attention. [19] Chellappa and Pavlou showed that if a website provides some kinds of privacy policy or security guarantees, customers tend to trust the website more than a website which does not provide any guarantee. measurement as well as showing some level of guarantee that there are some security policy such as encryption accessing, SSL protection etc. [6] Thus, the more privacy and security protection is offered, the more likely it is that customer trust will increase. [29]

However, customers hardly know what company does with their personal information. Many are afraid that their private information, such as profile, address, telephone number, e-mail and financial statement by credit card will be misused. Hence, they are more afraid and hesitant to provide their information to the company. Conversely, if hidden information is properly

protected, customers' risk will diminish. Perceived privacy and security protection could, therefore, negatively relate to perceived risk. [15]

Based on the above literature review, the following hypotheses are proposed.

H4a: Perceived privacy and security protection negatively relates with perceived risk.

H4b: Perceived privacy and security protection positively relates with trust.

2.2 Affect-based factors

Web interface design

When visiting website, interface design is the first component which attracts customers' intention and accelerates their initial trust. [10] According to Chen (2006), what factors influence to customers' trust in browsing the website, the finding shows that website characteristics significantly affect trust. They are functionality, usability, efficiency, reliability and likeability. Not only these five factors but colors, layout and graphic design are also included. Consequently, trust is obviously increased by constantly superior transaction system and ease of use in shopping website. [7]

Moreover, web interface design could alleviate perceived risk mentioned by Chang and Chen (2009). They said that web interface is designed with high quality which is comfortable and enable its shoppers to navigate easily. These characteristics make customers feel that the website is user friendly and can be trusted with the secure financial payment and securely keep their personal information. On the other hands, websites which are not well designed could cause their customers an uncomfortable feeling and in turn lead to perceived risk. [5]

Based on the above literature review, the following hypotheses are proposed.

H5a: Web interface design negatively relates with perceived risk

H5b: Web interface design positively relates with trust.

Web reputation

Although company reputation is an intangible asset, it can be used to generate corporate value and contribute to additional social capital for long-term business. [11] Good reputation is also one of the important factors that top executives should be concerned with. [4]

Furthermore Fung and Lee (1999) said that the reputation of a company and their website caused by two factors able to increase trust that the consumers have for their business. The first one is actual brand which refers well-known and prestige corporate. The latter one is called third-party organization that ensures trustworthy of E-commerce companies such as Visa, Microsoft etc. [10]

Past research on trust perception of first time American consumers found that famous brand and perceived reputation can increase customer trust. Brand and perceived reputation help ensure that initial viewers who have no experience with E-shopping feel more secured with the website. It can be inferred that website reputation positively relates with trust. [16]

Nevertheless, web reputation negatively relates to perceived risk. Resnick et al. (2000) gave Ebay as an example. From the Ebay case, it can be seen that after the implementation of reputation system, customers felt more confident with sellers and their products and in turn decrease their perceived risk. [26]

Based on the above literature review, the following hypotheses are proposed.

H6a: Web reputation negatively relates with perceived risk

H6b: Web reputation positively relates with trust.

Positive E-word of mouth

Online website not only contains lots of product information but also plenty of product knowledge and stories from customers who log on to share their experience each other via

blogs, forums as well as other social websites. [17] These information originated by customers are beneficial for buying decision-making [32] and is more trusting than those released by company. [2] As an influential instrument of marketing communication strategy, positive E-word of mouth is dramatically used by marketers and companies. [9]

Additionally, E word-of-mouth positively relate to perceived trust by buyers. [31] Casal'o et al. (2008) studied how E-word of mouth affects online banking business and found that buyers are unable to touch intangible service, and so they have no confidence in the Internet. Hence, opinions and positive E-word of mouth in online society are capable to increase consumer trust. [3]

On the other hand, perceived risk could be diminished by increasingly positive E-word of mouth [28]. Ha (2006) showed that positive E-word of mouth is able to successfully lessen perceived risk of product performance, not even financial risk, psychological risk and time risk. It can be inferred that positive E-word of mouth and perceived risk of customer has negative relationship. [12]

Based on the above literature review, the following hypotheses are proposed.

H7a: Positive E-word of mouth negatively relates with perceived risk

H7b: Positive E-word of mouth positively relates with trust.

From all hypotheses, the research framework was drawn as shown in Figure 1.

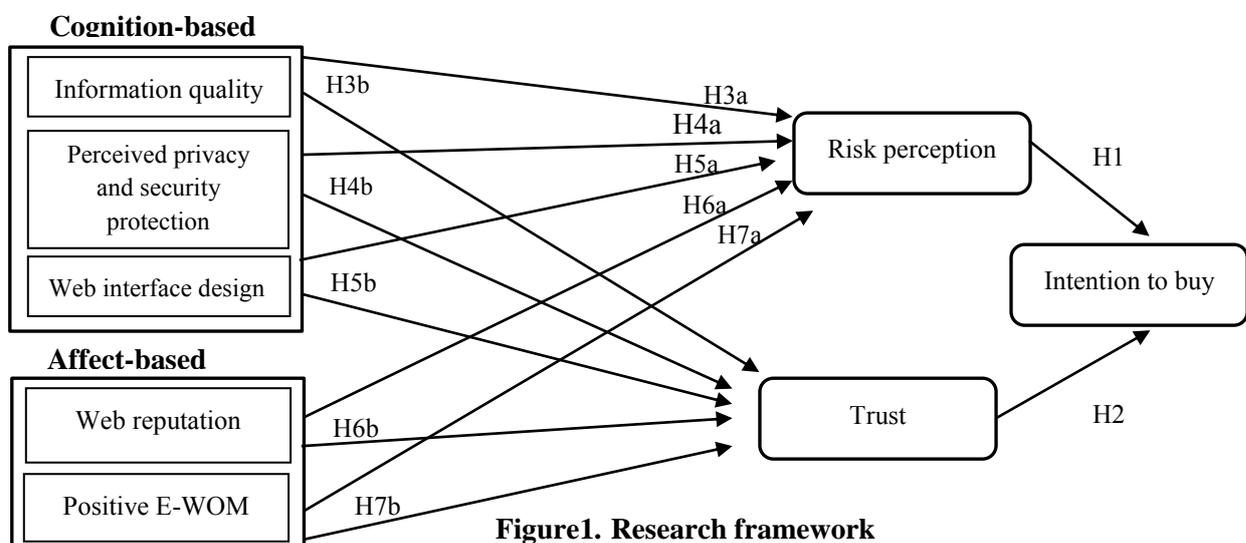


Figure1. Research framework

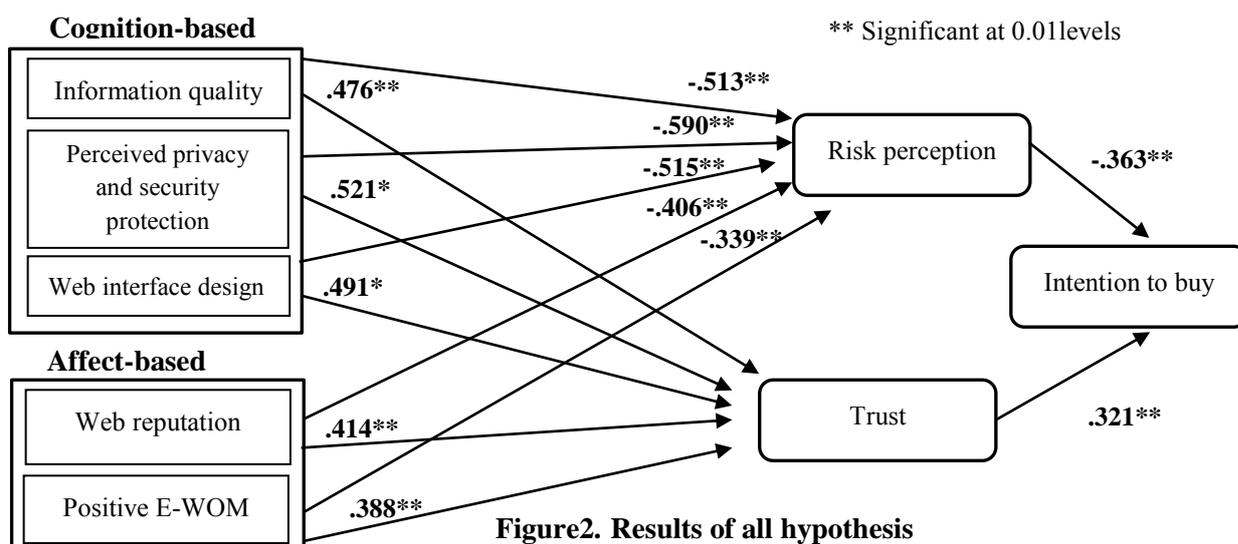


Figure2. Results of all hypothesis

3. METHODOLOGY

Survey research is considered appropriate to investigate factors influencing purchase intention by Thai customers. Data was collected from 400 online Thai shoppers via online questionnaires. Correlation analysis was conducted to test the relationship between five antecedent factors and independent variables (perceived risk and trust). Then, multiple regression analysis was tested between perceived risk and trust as independent variables and Intention to buy as a dependent variable.

4. RESULTS

4.1 Reliability Test

From Figure1, eight factors were tested for reliability using Cronbach's Alpha. The results show that all factors are highly reliable because their coefficient's alphas are more than 0.6 and approach to 1. [23] Table1.shows the results of reliability test of each construct.

Constructs	Conbach's Alpha
Information Quality (IQ)	.602
Perceived privacy and security protection (PSP)	.714
Web interface design (WID)	.784
Web reputation (WR)	.748
Positive E-word of mouth (PEWOM)	.867
Perceived risk (RP)	.811
Trust (T)	.790
Intention to buy (ITB)	.932

Table1. Conbachh's Alpha of each construct

4.2 Hypotheses Test

All hypotheses are accepted and classified in two dimensions: The first dimension analyzed by correlation analysis and the second one analyzed by multiple regressions. The result was drawn in Figure 2.

4.2.1 Correlation analysis

Correlation analysis statistic measured by Pearson Correlation and Bivariate Analysis shows that all five antecedents are significantly negative related to perceived risk. However, outcomes are different in each factors: PSP ($-.590$), WID ($-.515$), IQ ($-.513$), WR($-.406$)and PEWOM ($-.339$), respectively.

Whereas, another five antecedents are significantly positive related to trust. Outcomes are various: PSP ($.521$), WID ($.491$), IQ ($.476$), WR ($.414$) and PEWOM ($.388$), respectively.

4.2.2 Multiple regressions

Multiple regressions statistic shows that perceived risk has a significant negative effect on intention to buy which equal to $-.363$ while trust has a significantly positive effect on intention to buy which equal to $.321$. Despite of their composed direction, both perceived risk and trust have the approximate degree.

From all hypotheses, the summary of results was shown in Table 2. as follow.

Hypothesis	Result
H1: Perceived risk negatively affects intention to buy the product and service.	Accepted
H2: Trust positively affects intention to buy the product the product and service.	Accepted
H3a: Information Quality positively relates with trust.	Accepted
H3b: Information Quality negatively relates with perceived risk.	Accepted
H4a: Perceived privacy and security protection positively relates with trust.	Accepted
H4b: Perceived privacy and security protection negatively relates with perceived risk	Accepted
H5a: Web interface design positively relates with trust.	Accepted
H5b: Web interface design negatively relates with perceived risk	Accepted
H6a: Web reputation positively relates with trust.	Accepted
H6b: Web reputation negatively relates with perceived risk	Accepted
H7a: Positive E-word of mouth positively relates with trust.	Accepted
H7b: Positive E-word of mouth negatively relates with perceived risk	Accepted

Table2. Summary of results

5. CONCLUSIONS AND FUTURE WORK

5.1 Research findings

• General perspective

- Although all hypotheses are accepted, web Reputation and Positive E-word of Mouth are less influential on risk when compared to other antecedent factors.

This shows that although the website is being recognized and highly praised by a group of people and also has a lot of positive E-word of mouth, but the perceived risk of customer is not reduced greatly when compared with the quality information of the website, its customer's data protection and security system, and the well-organized web page, as opposing to Herr et al. (1991), which say that the information customer received from this E-word of mouth has more impact on the customer's attitudes and intention to

purchase the product than the information received directly from the marketing communication by the brand or the firm. [13]

- Perceived risk of Thai people to online shopping is still higher than foreigners, as opposing to Kim et al. (2008) [15], due to the lack of online shopping experience and the inefficient technology for protecting privacy and security system.

• Marketing perspective

As gender and age are different, the relationship between positive E-word of mouth and perceived risk /trust is dissimilar in two points.

- SEX: Females are more influenced by positive E-word of mouth than males do, related to their perceived risk.

- AGE: People in the aged of 24-35 are more influenced by positive E-word of mouth than people in the ages of 18-23, related to their trust.

As gender and age are different, the effect of perceived risk and trust on purchasing intention is dissimilar in two points.

- SEX: Males tended to be affected more by perceived risk than females do.

- AGE: E-shoppers in the age of 24-35 tended to be affected more by perceived risk than those in the age of 18-23.

5.2 Theoretical and practical contributions

• Theoretical contributions

This study made various theoretical contributions as follows:

- The finding could help improve and provide technological knowledge of E-commerce for studying in context of E-Trading in Thailand in the near future. For example, although Positive E-WOM and reputation are not the most important factor affecting the perceived risk and trust but they are still being the living area and a part of people nowadays. So, a strong social online-community will have an effect on the intention to purchase at last.

- Clarifying Thailand's consumer behavior: Perceived risk and Trust are key factors that have significant effect on online decision-making process.

- Presenting instruments to decrease perceived risk and increase consumer trust in online shopping. It is the instrument to develop the website both in terms of functional, including the quality of website and the protection and security system, and in terms of emotional started with the E-word of mouth, that arousing the customer to test the

product and service.

- **Practical contributions**

This study made various contributions as follows:

- It suggests that web designers pay more attention to the privacy and security system, information quality and website interface issues, when designing an e-commerce site for Thai e-shoppers. In addition, the research suggests that Thai business owners in B2C and entrepreneurs in C2C prioritize. This study made various contributions.:

It suggests that web designers pay more attention to the privacy and security system, information quality and website interface issues, when designing an e-commerce site for Thai e-shoppers. In addition, the research suggests that Thai business owners in B2C and entrepreneurs in C2C prioritize the basic quality of using such as an accessible and stable website and an easy-to-use interface. Then web designers should create the difference from other websites and initiate the long-term competitive advantage such as the well-organized ordering system that reducing the process and increasing more convenience to the customer. As follows, to communicate value by influencer marketing is a crucial factor to be concerned.

Furthermore, we made suggestion on how to apply the E-word of mouth marketing strategy to efficient implementation the e-commerce website the mark

- Delivering unique value to each different target groups: students either or working officers

Finally, practitioners should pay attention on gender, age, and occupation of e-shoppers as these factors affect the degree of influence of e-word of mouth on Thai e-shoppers' intention to buy.

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