

Sellers' Behavior in E-commerce: SME Exporters in Thai Fashion Industry

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This study was aimed to examine the factors affecting e-commerce by investigating behaviors among Thai SMEs exporters in fashion industry. Data was collected by questionnaires measuring nine independent variables and the two dependent variables of the intention of adopting e-commerce and e-commerce adoption behavior. Structural Equation Model was applied for analysis. The results shown that the hypothesized model was a good fit ($\chi^2(14, N=345) = 18.84, p = 0.17$), GFI = 0.99, RMSEA = 0.032, CFI = 1.00, NNFI = 0.99.) Perceived behavior is the only factor that had a direct effect on e-commerce using behavior. Intention to use e-commerce, perceived behavioral control competitive pressure, customer pressure, attitude toward e-commerce using and perceived benefits regarding to e-commerce using, all had direct effects on the intention to use e-commerce. The results from this study could be beneficial to develop positive attitude toward e-commerce using behavior, perceived benefit and perceived behavioral control among Thai SMEs exporters. Experimental research is suggested for testing reliability and validity of this research model. In addition, further research efforts in understanding the constructs of attitude toward behavior, perceived benefit and perceive behavioral control could be useful for developing SMS exporters' positive attitude toward e-commerce using behavior, perceived benefits and perceived behavior.

Key words: e-commerce, theory of Planned Behavior, innovation decision process

It was reported by the Office of Small and Medium Enterprises Promotion (OSMEP) (2010), Thailand that about 50% of GDP is derived from Small and Medium enterprises (SMEs), Thailand, and 77.86% of national employment is accounted for SMEs. Furthermore, 28.4% of national export comes from SMEs (OSMEP, 2010). Although SMEs have generated national revenue the trend of the export value is unstable, the Department of International Trade Promotion (DITP) (2015) reports have shown that SMEs' export values between 2011 to 2015 were 222,580 million USD in 2011, 229,106 million USD in 2012, 228,505 million USD in 2013, 227,524 million USD in 2014 and 214,375 million USD in 2015 consecutively. However, the detailed report has shown that fashion and jewelry product category with high tendency to export more although there was fluctuation in export trend during 2011-2015.

Due to the importance of SMEs performance in export, it illustrates that SMEs have a possibility to generate Thailand's revenue. However, the fluctuation in the exporting trend could be implied that SMEs' performance is not consistent and it is necessary to strengthen SMEs' capabilities in exporting to generate Thailand's revenue consistently. According to Thai fashion export value, Thai fashion industry was considered as a vital product category that should be supported to export their product constantly and should be encouraged to enhance their competitive edge by using e-commerce.

E-commerce is considered as one of the appropriate marketing strategies or competitive tools, the use of internet to distribute product, to communicate with buyers and/or sellers, to

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sell products and/or services and because it helps lower operation cost, promote product and/or services conveniently, spends less time to communicate with customers, reaches customers within 24 hours, builds company image quickly, adds more value for the products (Pongwittayapanu, 2008).

Literature Review

The importance of the role of Small and Medium enterprises' roles in generating revenue and contributing national employment influenced the author to study the factors affecting Thai SMEs' behavior in e-commerce. The results from this study could be used for encouraging SME Exporters in Thai Fashion Industry to apply e-commerce for exporting their products and to receive more revenue from expanding their market globally.

According to the review of previous researches, two dependent variables and nine independent variables were used in this study. The dependent variables were an intention of e-commerce adoption and e-commerce adoption behavior. The independent variables were attitude toward e-commerce using, subjective norm, perceived behavioral control in e-commerce using behavior, perceived benefits of e-commerce, perceived ease of use of e-commerce, need for achievement, competitive pressure, customer pressure and government supports.

According to the related previous researches, it was revealed that there were nine independent variables. They were attitude toward e-commerce using, subjective norm, perceived behavioral control in e-commerce using behavior, perceived benefits of e-commerce, perceived ease of use of e-commerce, need for achievement, competitive pressure, customer pressure and government supports. Independent variables used in this study were the intention of e-commerce adoption and the e-commerce adoption behavior. The details of variables in this study are explained further.

Behavioral Intention

An action related to an individual's attitude or belief toward a particular thing and is also related to behaviors' constructs. It is one readiness to act an action based on one's behavior because when a person believes in one thing, he/she will tend to perform an action that is related to his/her belief (Tawin, 1983). Researches show that there is a positive relationship between behavioral intention and the actual behavior (as noted by Kim, Shin, & Kim, 2011; Gumussoy & Calisir, 2009)

Attitude

An evaluation of one's feeling toward one thing or a behavior, if one believes he/she will gained positive outcome from performing an action, one will tend to have positive attitude toward that behavior (Fishbein & Ajzen, 1975). Previous researches indicated that attitude toward the behavior has a) a positive relationship with the behavioral intention (Crespo & Bosque, 2008) and, b) a positive relationship with behavior (Oliveria & Martins, 2010; Mei, 2008).

Subjective Norm

An individual's perception on the degree of importance of others to him/her then he/she will agree or disagree to perform as others desired. It is a perception that norm put

pressure on one to perform or not perform a specific action as expected (Ajzen, 1991, p. 188). The previous researches shown that subjective norm has a positive relationship with behavioral intention (Tan & Teo, 2000).

Perceived Behavioral Control

Sometimes when someone faces an ambiguous situation, he/she might be worried whether he/she could control one's behavior under that situation, however, if one examines confidently that he/she has capabilities or skills to perform an action to achieve desired outcome (Bandura, 1986). Researches indicated then there is a positive relationship between behavioral intention and perceived behavioral control (Gumussoy & Calisir, 2001).

Perceived Benefits

An individual's perception or belief that he/she could benefit from performing a particular practice such as lower operation cost, promote product or service and etc. It is the belief that he/she would receive positive incentives from performing a specific activity (Pender, 1996). The previous researches indicated that perceived benefits, a) has a positive relationship with behavioral intention (Kamel, Hasan, & Samia, 2011) and, b) has a positive relationship with behavior (Alam, Hatibi, Mohd, Ismail, & Ismail, 2008).

Perceived Ease of Use

It is the degree to which a person believes that an innovation, technology application or program that he/she plans to use in the future is lacking of difficulty to use or no complexity. Moreover, it is easy to learn how to use and requires no effort to understand how the system works or operates (Davis, 1989). The previous researches have shown that perceived ease of use has, a) a positive relationship with attitude toward behavior (Bootsara, 2013; Walan, 2011), and b) has a positive relationship with perceived benefit (Wei & Zhang, 2008; Jureeporn, 2012) and, c) has a positive relationship with behavioral intention (Bootsara, 2013; Noppamas, Sutkanung, Phakatip, & Prasert, 2012).

Need for Achievement

An individual looks forward to performing and/or tends to avoid both a low-risk and a high-risk situation which implied that one prefers a work which has a moderate chance of success. Moreover, one normally views the outcome as an opportunity rather than one's effort (McClelland, 1965). Other researches have shown that, a) need for achievement has a positive relationship with attitude toward behavior (Somkid, 2000) and, b) has a positive relationship with behavior (Ongart & Nunnapat, 2000).

Competitive Pressure

This means the level of pressure that a company receives when its competitors adopt any new technology, especially a technology for buying and selling e-commerce, and pressures a company to do as well. Moreover, it is an external pressure that makes a company accepts new technology and use it for its business (Zhu, Kraemer, & Xu, 2002). The previous researches indicated that, a) there is a positive relationship between competitive pressure and behavioral intention (Salem & Samuel, 2012; Muhamad & Robert, 2006) and, b) there is a

positive relationship between competitive pressure and behavior (Jennifer & Kenneth, 2002; Paul, Izak, & Abert, 2001).

Customer pressure

A level of pressure that a company receives when its customers request or negotiate a company to adopt a new technology to add more value for its product, as well as for building relationship with customers (Cata, 2003). A company usually considers adopting e-commerce when recognizing the pressure from its customers who request a company to adopt e-commerce as his/her convenience in buying and selling (Jennifer & Kenneth, 2002). Researches have shown that customer pressure has a positive relationship with behavior (Chong, 2008).

Government Support

This refers to any helps given by government in order to stimulate any companies to adopt e-commerce for their businesses such as protection regulations, support policies, financial policy support, technical support, acknowledgements, incentives, advices and etc. (Jeon, Han, & Lee, 2006). The previous research indicated that government support has a positive relationship with behavior (Chong, 2008; Chen, 2004).

In conclusion, according to earlier related researched it showed that attitude toward e-commerce using, subjective norm, perceived behavioral control in e-commerce using behavior, perceived benefits of e-commerce, perceived ease of use of e-commerce and competitive pressure had influence on behavior intention. Behavior intention, attitude toward e-commerce using, perceived behavioral control in e-commerce using behavior, need for achievement, competitive pressure, customer pressure and government supports had influence on actual behavior. Moreover, there were relationships between independent variables like need for achievement and attitude toward e-commerce using and relationship between perceived ease of use of e-commerce and perceived benefits of e-commerce.

Research Objectives

There were two objectives

1. To test the hypothetical model of the chosen variables.
2. To empirically test the relationship of the selected casual factors with the e-commerce using behavior among SMEs exporters of fashion categories in Thailand.

Conceptual Framework

This research framework is based on Theory of Planned Behavior (Ajzen, 1991). It consists of 3 constructs which are attitude, subjective norm and perceived behavioral control. The theory of Planned Behavior fits research in the work context and shown that under normal circumstance, one will think about consequences from one's actions before he/she decides to perform any actions. Moreover, it is stated, "an indication of an individual's readiness to perform a given behavior called "behavioral intention"" (Ajzen, 2002). The behavioral intention is assumed to be an immediate antecedent of behavior (Ajzen, 2002). In addition, other related concepts such as need for achievement, perceived benefits of e-commerce, competitive pressure, customer pressure and government support that has been

evaluated in the previous researches to understand their relationship with a) behavioral intention, and b) behavior were applied for this study to cover all dimensions of notions as well as to make this study be more empirical. Dependent variables are applied based on Innovation Decision Process (Rogers, 1983), a combination process of actions and intentions regarding one thing. When a person is aware of an innovation, he/she will develop an attitude toward it and go through decision acceptance process to accept it or reject it and finally adopts it or reject it. There are five stages of Innovation Decision Process, 1) awareness: a person is aware of innovation but has no interest in it 2) interest: a person is interested in an innovation and search for more information about it 3) evaluate: a person compares pros and cons of an innovation 4) trial: a person try an innovation and evaluate whether an outcome meets an expectation then a person will develop an intention to accept it 5) acceptance: a person will accept an innovation when the expectation is met. However, only an adoption stage was applied in this current study according to the purpose of this study.

The proposed research framework illustrating the hypothesized relationship among variables is shown in figure 1.

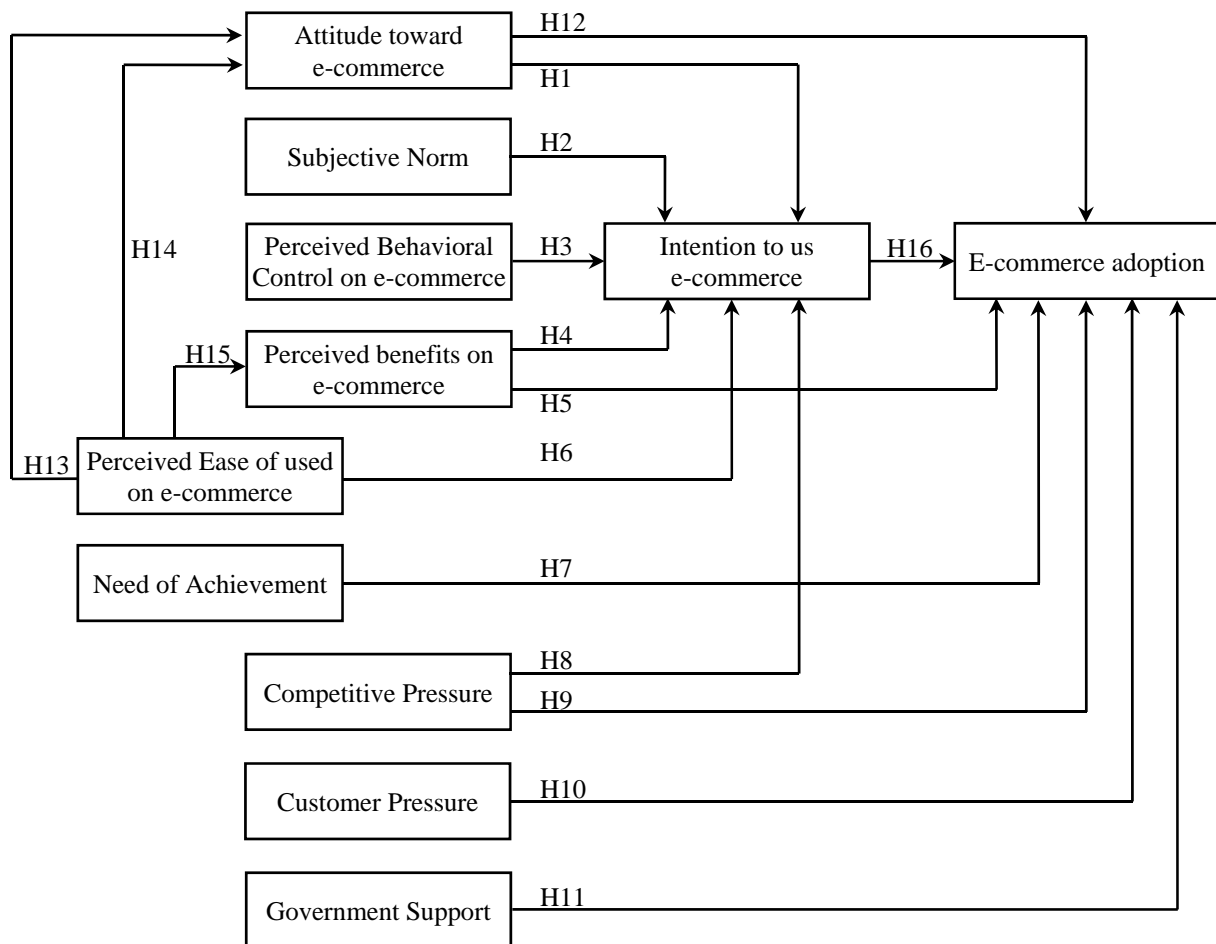


Figure 1. Conceptual Framework.

Research Methodology

Sampling

The population for this study was 2,239 Thai SMEs exporters in fashion product categories. A sample of 345 SMEs owners of fashion product category in Thailand who have used e-commerce in their businesses were selected through simple random sampling. The data was collected during 2014.

Research Method

This is a quantitative research design and the questionnaires used in this study were developed based on related literature review. Pilot testing were applied to test for validity and reliability, all the questions with Cronbach's alphas value more than or equal 0.8 were selected to use as the finals set of questionnaires. The reliability test of the selected questions is shown in table1

Table1

Reliability Test

Variables	Cronbach's alpha
Attitude toward e-commerce using behavior	0.7
Subjective Norm	0.4
Perceived behavioral control	0.9
Perceived benefit	0.9
Perceived ease of use	0.8
Need for achievement	0.9
Competitive pressure	0.9
Customer pressure	0.9
Government support	0.9
Intention to use e-commerce	0.9

Results

In this study, 345 complete responses were received. As shown in Table 2, it is found that the participants in the study were consisted of female (68.7%) more than male (31.3%) with average age of 42.11 years old. Most of the respondents have bachelor degrees (58.2%), and 63.2% of them are married. Moreover, it is shown that the average year that the respondents have established their businesses are 12.98 year, and the average number of employee is 37 persons.

Table 2

Demographic Characteristics of the Research Samples

Characteristics	<i>N</i>	Percentage	Mean
1. Gender			
Male	108	31.3	
Female	237	68.7	
Total	345	100.0	
2. Age	345		42.11
3. Education Degree			
Lower than bachelor degree	121	35.1	
Bachelor degree	182	52.8	
Higher than bachelor degree	42	12.2	
Total	345	100.0	
4. Marital Status			
Single	110	31.9	
Married	218	63.2	
Divorced	17	4.9	
Total	345	100.0	
5. Years in business	345		12.98
6. Number of employees	345		37.14

As shown in table 3, the fit of hypothesized model was not good (χ^2 (18, $N = 345$) = 247.59, $p = 0.0$), GFI = 0.88, RMSEA = 0.195, CFI = 1.00, NNFI = 0.86.). Therefore, the structural model was modified based on modification index, review literature, related concepts and theory and related research article.

After the model was modified, the mode fit indicators presented acceptable values (χ^2 (14, $N = 345$) = 18.84, $p = .17$), GFI = 0.99, RMSEA = 0.032, CFI = 1.00, NFI = 0.99) and are presented in table 3. The suitability of this model to analyze the adoption of e-commerce is informed by the relatively high explained variance obtained for attitude toward e-commerce using ($R^2 = 0.39$, $p < .05$). The attitude toward e-commerce using behavior is predicted by perceived benefit ($\beta = 0.35$, $p < .05$), subjective norm ($\beta = 0.16$, $p < .05$) and perceived behavioral control ($\beta = 0.16$, $p < .05$). Consecutively, results also reveal an explained variance of intention to use e-commerce ($R^2 = 0.4$). Intention to use e-commerce is explained by perceived benefit ($\beta = 0.54$, $p < .05$) and perceived behavioral control ($\beta = 0.28$). Then, it is shown an explained variance of e-commerce adoption ($R^2 = 0.05$). E-commerce using behavior is explained by perceived behavioral control ($\beta = 0.04$, $p < .05$).

Table 3

Mode Fit Indicators

Indicators	Hypothesized model	Adjusted model
χ^2	247.59	18.84
χ^2/df (CMIN/DF)	13.76	1.35
GFI	0.88	0.99
CFI	1.00	1.00
NNFI	0.86	0.99
RMSEA	0.19	0.03
	Model does not fit	Model does fit

Discussion & Conclusion

The findings indicated the casual relationship among the variables in e-commerce using behavior model of SMEs exporters in fashion categories were supported by the empirical data. The results have shown that the perceived behavioral control is an interesting casual variable and should be focused on intensively. These results are constructed with the previous studies, showing that the perceived behavioral control has a direct effect to attitude toward e-commerce using behavior (Areewan, 1998; Hatairat, 2000). Moreover, the evidence from this study is consistent with previous researches, indicating that the perceived behavioral control has a direct effect to the behavioral intention (Kim et al., 2011; Gumussoy & Calisir, 2009). Trost, Pate, Dowda, Ward, & Saunders (2002) suggested that the perceived behavioral control has a direct effect to e-commerce using behavior. In addition, recent findings indicated that perceived behavioral control has a direct effect to e-commerce using behavior (Areewan, 1998).

The present study has shown that the perceived benefit has a direct effect to attitude toward e-commerce using behavior. These findings confirm to the previous studies indicated that perceived benefit had significant relationship with attitude toward behavior (Casalo, Flavián, & Guinalú, 2010; Ozkan & Kanat, 2011). Moreover, the evidence from this study is consistent with previous studies, showing that perceived benefit has a direct effect on the behavioral intention (Kamel, et al., 2011).

The present findings have shown that attitude toward e-commerce using behavior has a direct effect to e-commerce using behavior which is consistent with previous studies indicating that attitude toward behavioral had significant relationship with behavior. (Kim, et al., 2011; Grandon, Nasco, & Mykytyn, 2009).

The results from this study could be beneficial for the Office of Small and Medium Enterprises Promotion, Thailand, to develop positive attitudes toward e-commerce using behavior, perceived benefit and perceived behavioral control among Thai SMEs exporters by a) providing information about the benefit of using e-commerce, b) providing contact points when they are facing problem from using e-commerce and, c) encouraging target SMEs to use e-commerce in their business.

For further research, experimental research is suggested for testing the reliability and validity of this research model. In addition, further research efforts in understanding the constructs of attitude toward behavior, perceived benefit and perceive behavioral control could be useful for developing SMS exporters' positive attitude toward e-commerce using behavior, perceived benefits and perceived behavior.

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