The Customers' Attitude towards the Purchase of a New Car on an Online Site in Thailand

Patra Vititayanon* and Rawin Vongurai

Graduate School of Business, Assumption University, Thailand
*Corresponding author, E-mail: pattiejaa@gmail.com

Abstract

Trust is the most significant factor in online shopping. Those organizations interested in expanding their business channels with internet shopping need to understand the influence of consumers' trust, and how it depends on other independent variables. This research aims to study the attitudes of consumers toward new car online shopping websites in Thailand. The study presents an integrated model which includes the external environment, personal characteristics, service characteristics, website quality, and Trust that have their effects on the new car online shopping of customers' attitudes. The non-probability and sampling methods were used for distributing the online questionnaire to 401 respondents who live in Thailand. The simple linear regression and multiple linear regression were used to analyze the data. Further, the authors found that consumers concern the quality of the websites (21%) and service characteristic (20.6%) while trust cause at 94.2% to attitudes of the new car shopping online.

Keywords: *Automotive, online shopping, trust, service, consumer attitude*

1. Introduction

The advance internet technologies impact on people's lives and the business operations as it is apparent now that the internet and developed technologies have differentiated forms of services which support levels of needs. Especially in the automotive business, online spending and the number of websites for shopping online are dramatically increasing (Vazquez and Xu, 2009; Çelik, 2011).

According to The Statistics Portal (2017), more than 38.91 million Thai people using the internet, which this number refers to about 56.35 per cent of the total population of Thailand which is 69.04 million. However, though there are lots of people using the internet as a new channel of online business, it is not quite popular in the new car business, this study will find the attitude that Thai consumers have toward new car online shopping.

Furthermore, online shopping allows customers to buy products from online stores directly. Then, the consumers' experience in an online store expresses their real experience in this situation. Also, it can imply that the layout and design of the online shop website essentially impact the attitude of consumers which can adapt in the automotive business as well. The higher the quality of the website, the better the positive attitudes of consumers towards that online store. Moreover, the higher quality of web site resulted in a higher trust's perception (Hsiao et al., 2010). It is highlighted in the context that even building trust is a very daring process but it is very significant to consumers' attitudes in Thailand.

Following, the research methodology is discussed in terms of research population and sample, measurements, designed online questionnaire, reliability of the constructs, the model, and hypotheses testing process. The results of the study are presented; the discussions and practice are followed. Finally, conclusions and limitations are presented, and future research recommendation is provided.

2. Objectives

The objective of the study is to investigate the attitude of Thai consumers towards new car online shopping through the factors which are the external environment, personal characteristics, service characteristics, website quality, and Trust.

3. Materials and Methods

Conceptual Framework

1738

The conceptual framework of this study is adopted from the theoretical framework of Na Li and Ping Zhang (2002). The theory presented Consumer online Shopping attitudes and behavior: An assessment of research. To review the mentioned study, we applied the research structure major independent variables and tested the impact on dependent variables. The proposed conceptual framework is shown as the model in Figure 1.
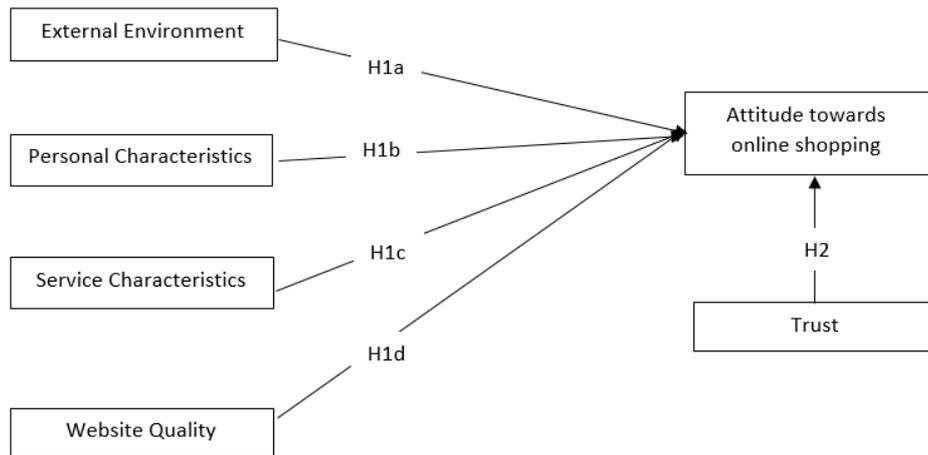

Figure 1 Conceptual framework

The Hypotheses in this research shown in table 1.

Table 1 Defined Hypothesis

H	Hypotheses
H1	External Environment, Personal characteristics, Service characteristics and Website Quality have significant influence the attitude towards online shopping. (H1a) (H1b) (H1c) (H1d)
H2	Trust has significant influence the attitude towards online shopping. (H2)

Research Methodology

To examine the 2 hypotheses, this study used a quantitative approach with a non-probability method and collected data from an online questionnaire for analysis. The respondents were selected by a convenience sampling technique. The sampling technique randomized from the researcher's contact list on each platform such as Facebook and Line and the respondents were asked to forward the questionnaires to whom they know. There were 3 parts in the questionnaire which are screening question, Likert scale, and demographics. The Likert scale was used with a range mentioning 5 as 'Strongly Agree' and 1 as 'Strongly Disagree' to test the hypotheses.

Measurement of Variables

The sampling respondents of this research are people who live in Thailand. The conceptual framework was developed to ensure and be an appropriate model by conducting from the literature review.

Population and sample

This research distributed an online survey to the people living in Thailand both those who have ever bought a car via an online website and those who have never, randomly selected as target respondents for this study. Theoretically, at least 384 respondents are required for representing 67 million people of Thai population size with 95% confident level (Krejcie & Morgan, 1970). The researcher had approached and

conducted on a total of 405 respondents. After validating the sample by the screen questions, a total of 401 respondents were qualified and considered as target respondents of this study.

Reliability Test

At the pilot stage, the reliability test was established when the number of different respondents reached 30. In examining the level of reliability in each group of items included in the questionnaire, Cronbach's Alpha Coefficient was used to test whether the reliability level of those groups is consistent and higher than 0.6 (Cronbach, 1951). The reliability level that passes the qualifications can be implied that the questionnaire developed in this study passes the standard requirement for the reliability test and is admissible to move the research forward.

Table 2 Consistency of scales test (N=30)

Variables	Cronbach's Alpha	No. of Items
External Environment	0.851	3
Personal Characteristics	0.728	3
Service Characteristics	0.614	2
Website Quality	0.954	2
Trust	0.939	4
Attitudes Towards Online Shopping	0.920	3

4. Results and Discussion
Data Analysis

Based on the conceptual framework in Figure1, Multiple Linear Regression (MLR) and Single Linear Regression (SLR) are used to find the impact, relationship, and difference between the dependent variable which is Attitudes Towards Online Shopping (ATOS) and the independent variables which are External Environment (EE), Personal Characteristics (PC), Service Characteristics (SC), Website Quality (WQ), and Trust (TRUST) according to the defined conceptual framework.

Demographic profile summary

The demographics and characteristics of 401 respondents who live in Thailand are in Table 3 below. The majority of the respondents is female (52.62%) while male only (47.38%). The marriage status can be divided into three categories; single (44.39%), married (52.37%), and other (3.24%). The ages of the respondents are between 22-35 years old (34.16%), 46-60 years old (32.67%), 36-45 years old (26.93%), above 60 years old (5.49%), and less than 22 years old (0.75%). The majority of the respondents lives in Bangkok and Metropolitan (68.58%), followed by Northeast (14.21%), North (5.24%), East (4.74%), Central (exclusion of Bangkok and Metropolitan (4.49%), South (1.75%), and West (1%). Most of the respondents currently study Bachelor's Degree (54.86%), followed by Master's Degree (27.43%), below Bachelor's Degree (15.46%), and above Master's Degree (2.24%). Most of the respondents currently work as a company employee (55.11%), followed by Government officer, Self-employed (Working for oneself as a freelancer or the owner of a business rather than for an employer) (Boston BBB and Patch Contributor, 2013), Others, Student, State enterprise employee, Unemployed, and Entrepreneur (organizes and operates a business or businesses, taking on greater than normal financial risks in order to do so) (Boston BBB and Patch Contributor, 2013) for (20.45%), (10.72%), (6.73%), (2.49), (2.24), (1.25%), and (1%) respectively. The major monthly income ranges are 15,000-30,000 THB (30.17%), followed by above 60,000 THB (24.94%), 30,001-45,000 THB (22.94%), 45,001-60,000 THB (13.97%), and less than 15,000 THB (7.98%)

Table 3 Demographic Information of the target respondents (N=401)

Demographical & Behavior Data (N = 401)		Frequency	Percent (%)
Gender	Male	190	47.38
	Female	211	52.62
Status	Single	178	44.39
	Married	210	52.37
	Other	13	3.24
Age	Less than 22 years old	3	0.75
	22 - 35 years old	137	34.16
	36 - 45 years old	108	26.93
	46 - 60 years old	131	32.67
	Above 60 years old	22	5.49
Geographic	Bangkok and Metropolitan	275	68.58
	Central (Exclusion of Bangkok and Metropolitan)	18	4.49
	North	21	5.24
	East	19	4.74
	South	7	1.75
	West	4	1
	Northeast	57	14.21
Education	Below Bachelor's Degree	62	15.46
	Bachelor's Degree	220	54.86
	Master's Degree	110	27.43
	Above Master's Degree	9	2.24
Occupation	Unemployed	5	1.25
	Student	10	2.49
	Company employee	221	55.11
	Government officer	82	20.45
	State enterprise employee	9	2.24
	Entrepreneur	4	1
	Self-employed	43	10.72
	Others	27	6.73
Income	Less than 15,000 THB	32	7.98
	15,000-30,000 THB	121	30.17
	30,001-45,000 THB	92	22.94
	45,001-60,000 THB	56	13.97
	Above 60,000 THB	100	24.94

Pearson's Correlation

Regarding the Pearson's Correlation Matrix for the hypotheses in Table 1 (H1 – H2) exhibited in Table 3, most of the variables have positive correlations among each other with P-value less than 0.05. According to the strength of correlations defined by the Political Science Department at Quinnipiac University (Statistic how to, n.d.), a strong positive relationship is in the range between 0.595-0.688. In this research, there are two pairs in the matrix showing a very strong relationship. The two pairs are Website Quality (WQ) and Service Characteristics (SC) at 0.735 correlation and Trust (TRUST) and Attitudes Towards Online Shopping (ATOS) at 0.942 correlation. It implies that Trust is what the customers concern most when buying things from the online website, followed by Website quality, while the customers less concern on External Environment (EE) and Personal Characteristics (PC) factors.

Descriptive Statistics N= 401					Pearson Correlation				
Variable	**Mean**	**Std. Deviation**	**EE**	**PC**	**SC**	**WQ**	**TRUST**	**ATOS**
EE	3.4248	1.18108	1					
PC	3.5503	0.88335	.331*	1				
SC	4.4252	0.78701	.219*	.318*	1			
WQ	4.5973	0.71625	.198*	.294*	.735*	1		
TRUST	3.2743	0.89488	.346*	.478*	.216*	.205*	1	
ATOS	3.2045	0.89117	.339*	.477*	.206*	.210*	.942*	1

Note: * represents the correlation which is significant at 0.05 level (1-tailed).

Inferential Analysis

Table 4 Multiple Linear Regression (MLR) and result of H1a – H1d

	Hypothesis	**Standardized Coefficients (β)**	**VIF**	**Sig**	**Result**
H1a	EE => ATOS	0.197	1.143	0	Supported
H1b	PC => ATOS	0.396	1.217	0	Supported
H1c	SC => ATOS	-0.007	2.238	0.914	Not supported
H1d	WQ => ATOS	0.06	2.195	0.347	Not supported
R Square			0.267		
Adjusted R Square			0.259		
Std. Error of the Estimate			0.76698		
a. Predictors: (Constant), WQCtotal, EEtotal, PCtotal, SCtotal					

The result in Table 4 shows R-square at 0.267 which can be implied that all four independent variables which are External Environment (EE), Personal Characteristics (PC), Service Characteristics (SC), Website Quality (WQ), and Trust (TRUST) could explain the dependent variable, Attitudes Towards Online Shopping (ATOS) around 26% at the significant level of 0.05 or the 95% of confident level. The P-values of all independent variables are less than 0.05 except for Service Characteristics (SC) and Website Quality (WQ) which confirm that the hypotheses, namely H1a and H1b, are supported whereas H1c and H1d are not supported. The multicollinearity problem was also validated and found no issues with all variance inflation factors (VIF) are less than 5.0.

Table 5 Simple Linear Regression (SLR) and result of H2

	Hypothesis	**Standardized Coefficients (β)**	**R Square**	**Sig**	**Result**
H2	TRUST => ATOS	0.942	0.886	0	Supported
Std. Error of the Estimate			0.30069		
a. Predictors: (Constant), TRUSTtotal					

The statistical evidence in Table 5 shows the single linear regression analysis between Trust and Attitudes Towards Online Shopping. As p-value is less than 0.05, this implied that trust has a significant impact on Attitudes Towards Online Shopping at 95% confident interval. In addition, the correlation of determination ($R2$) is 0.886 which implies that trust can explain the Attitudes Towards Online Shopping 88.6%. Therefore, H2 is supported. Due to the positive value of beta (β), it means that trust has a positive impact on Attitudes Towards Online Shopping. It also reveals that trust accumulated for the consumers to express their intention and reaction towards online shopping as a conflict to their belief affects the frequency of the use of online payment systems because it may take time for some of them to believe and rely on the internet.

5. Conclusion

This research has emphasized the factors influencing consumers' attitudes towards new car online shopping websites in Thailand; the effects of the external environment, personal characteristics, service characteristics, website quality, and trust, by using multiple linear regression (H1) and simple linear regression (H2).

For H1, the independent variables are the external environment, personal characteristics, service characteristics, and website quality, and the dependent variable is attitudes towards online shopping. Multiple Linear Regression has been adopted for the analysis and results of H1. It shows that the external environment and personal characteristics have significant positive impacts on attitude towards online shopping.

Besides, Simple Linear Regression has been applied for the analysis and results of H2. It indicates that trust has significant positive impacts on attitudes towards online shopping with the Standardized Coefficients of 0.942 or 94.2%.

To summarize, this research studied the factors influencing Thai customers of dealers' online websites in terms of which factor is the most attractive point that motivates the customers to buy a car from the websites. The research showed that trust is the most concerned factor that the dealers have to focus on and ensure to gain so that the customers tend to buy the car online more, which reduces the cost of distribution and also changes the process of purchasing a car in Thailand.

6. Recommendation

The results show that people concern about trust as the most important factor in new car online shopping. Consequently, vendors should focus on this factor to gain reliability from customers. Also, in terms of the External Environment, Personal Characteristics, Service Characteristics, and Website Quality, the Vendors are recommended to differentiate the website by focusing on competitors, customer service, and the quality and design of the website.

7. References

Boston BBB and Patch Contributor (2013). The Difference Between Entrepreneurs and the Self-Employed, Retrieved April 12, 2019 from https://patch.com/massachusetts/malden/the-difference-between-entrepreneurs-and-the-selfemployed_0bb9c4b9

Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297-334.

Hsiao, K., Lin, J., Wang, X., Lu, H. and Yu, H. (2010). Antecedents and consequences of trust in online product recommendations: an empirical study in social shopping. *Online Information Review,34* (6), 935-953.

Krejcie, V., and Morgan, W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, Retrieved October 10, 2018, from http://journals.sagepub.com/doi/abs/10.1177/001316447003000308

The Statistic Portal (2017), Number of internet users in Thailand from 2015 to 2022 (in millions), Retrieved November 18, 2018, from https://www.statista.com/statistics/553730/number-of-internet-users-thailand

Vazquez, D. and Xu, X. (2009). Investigating linkages between online purchase behavior Variables. *International Journal of Retail and Distribution Management, 37*(5), 408-419.

Li, N. and Zhang, P. (2002). Consumer Online Shopping Attitudes and Behavior: An Assessment of Research. Retrieved from https://www.zamaros.net/NACB%20READING%203.pdf