Online Customer Loyalty Components in Thailand E-Commerce Industry

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ABSTRACT

In recent years, electronic commerce (e-commerce) in Thailand has been growing rapidly. Customers can easily access to the internet; they are likely to interact with brands on internet before they decide to purchase with them. E-loyalty programs are currently increasing in popularity in the online business. E-commerce in Thailand, has seen an enlargement in the use of e-loyalty programs by marketers, and many scholars. They are also attempted to understanding the determinants of online customer loyalty. Therefore, the objective of this study is to identify the components of online customer loyalty in the Thailand e-commerce industry. The target sample for this study were individuals in Thailand who have used e-commerce websites and mobile applications. Judgment sampling is adopted in this study. Therefore, the sample in this study can be confidently assumed to be representative of the online shopper in e-commerce industry in Thailand because judgmental sampling is a non-probability sampling technique where authors select units to be sampled based on our knowledge and professional judgment. We choose only those sample items which we feel to be the best representative of the population with regard to the attributes or characteristics under investigation. The results of this study confirm that the online customer loyalty components in the Thailand e-commerce industry consist of behavioral loyalty and attitudinal loyalty.

Keywords: Online Customer Loyalty, E-Commerce, Thailand

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บทคัดย่อ

ในช่วงระยะเวลาไม่กี่ปีที่ผ่านมาธุรกิจพาณิชย์อิเล็กทรอนิกส์ในประเทศไทยได้ขยายและเติบโตอย่างรวดเร็ว ประกอบกับผู้บริโภคสามารถเข้าถึงอินเทอร์เน็ตได้โดยง่าย ผู้บริโภคมีแนวโน้มที่จะมีปฏิสัมพันธ์กับตราสินค้าบนอินเทอร์เน็ตก่อนการตัดสินใจซื้อ อย่างไรก็ตามในธุรกิจการค้าออนไลน์นั้น การจัดโปรแกรมความจงรักภักดีทางอินเทอร์เน็ตกำลังได้รับความนิยมเป็นอย่างมาก ในธุรกิจพาณิชย์อิเล็กทรอนิกส์ในประเทศไทยมีการใช้โปรแกรมความจงรักภักดีทางอินเทอร์เน็ต ซึ่งกำลังได้รับความสนใจจากนักการตลาดและนักวิชาการที่ต้องการศึกษาในด้านนี้เป็นอย่างมาก ดังนั้น การวิจัยในครั้งนี้จึงมีวัตถุประสงค์เพื่อทำการวิเคราะห์เพื่อยืนยันองค์ประกอบของความจงรักภักดีของผู้บริโภคออนไลน์ในกลุ่มอุตสาหกรรมธุรกิจพาณิชย์อิเล็กทรอนิกส์ในประเทศไทย กลุ่มตัวอย่าง คือ ผู้บริโภคออนไลน์ที่ซื้อสินค้าผ่านทางเว็บไซต์พาณิชย์อิเล็กทรอนิกส์และแอปพลิเคชันบนอุปกรณ์สมาร์ทโฟนในประเทศไทย ใช้วิธีการสุ่มตัวอย่างแบบใช้วิจารณญาณของนักวิจัย ซึ่งกำหนดกลุ่มตัวอย่างจากผู้ที่ทำการซื้อสินค้าผ่านทางธุรกิจพาณิชย์อิเล็กทรอนิกส์เท่านั้น ดังนั้น ในงานวิจัยชิ้นนี้จึงมั่นใจได้ว่ากลุ่มตัวอย่างจะเป็นตัวแทนของผู้ซื้อสินค้าในอุตสาหกรรมอีคอมเมิร์ซในประเทศไทย เนื่องจากการสุ่มตัวอย่างแบบใช้วิจารณญาณเป็นเทคนิคการสุ่มตัวอย่างที่ไม่อาศัยความน่าจะเป็น ผู้วิจัยเลือกหน่วยตัวอย่างตามความรู้และวิจารณญาณและเลือกเฉพาะกลุ่มตัวอย่างที่ผู้วิจัยเห็นว่าเป็นตัวแทนที่ดีที่สุดของประชากร โดยคำนึงถึงองค์ประกอบหรือคุณลักษณะเฉพาะที่อยู่ภายใต้เงื่อนไขการวิจัย ผลการศึกษายืนยันว่าความจงรักภักดีผู้บริโภคออนไลน์ในอุตสาหกรรมธุรกิจพาณิชย์อิเล็กทรอนิกส์ในประเทศไทย ประกอบด้วยสององค์ประกอบหลัก คือ ความจงรักภักดีจากพฤติกรรม และความจงรักภักดีจากทัศนคติ

คำสำคัญ : ความจงรักภักดีผู้บริโภคออนไลน์ ธุรกิจพาณิชย์อิเล็กทรอนิกส์ ประเทศไทย

1. INTRODUCTION

The internet has become a center for competition and an increasing number of companies have perceived the significance of being available online. Apart from an increase in the number of internet users, Thailand's demography and urbanization are also supporting growth of e-commerce. The e-commerce market in Thailand is currently second largest in Southeast Asia and expected to grow 22% annually till 2020. The driving factors come from increased mobile phone use and internet as well as improved electronic payment systems and logistics (The international trade administration, 2017).

Internet users market is a great way to connect the entire brand through smartphones, or even tablets. Access to the internet has positive meanings for the economy and society but increased usage leads to a number of challenges and it's has beneficial implications for the businesses and customers. The Internet provides customers with a valuable tool for information, providing customers with a greater understanding of their products, while access to online markets improves prices and increases competition. Thai online shoppers are known for their prudence when it comes to the products they consume, consequently, online market via website and mobile application are more convenient ways for consumers to buy. A competent online market via website and mobile application are more than just a convenient platform to purchase products and services. It should also provide a personalized experience that relates both to the customer's interests and expresses details about products and services. McQuitty and Peterson (2000) stated that internet customers can seek virtually any product at any time and from anywhere around the world. With the growth of e-trading, consumers have to oppose with risks they recognize about the product, the environment or the buying process (Ko, Jung, Kim & Shim, 2004).

Online purchasing is more convenient, speedy and accessible from lots of connected devices, and online retailers try to have a strong security systems. While criminals still target store websites and customers. The success of the purchases with online relies on high trust because feelings of uncertainty and risk negatively influence the customers' trust that does not raise online purchasing. The companies benefit from loyal customers because they are less price sensitive, the costs to maintain loyal customers are lower than those to attract new ones, they illustrate a more stable source of income, and they contribute to increasing the company's financial performance. Customer loyalty is a mix of attitudes and behavior that becomes a deeply held commitment to repatronize or rebuy a preferred product/service consistently in the future. In the online trading, loyalty has been defined as the customer's desirable attitude towards an electronic business resulting in repeat purchasing behavior (Anderson & Srinivasan, 2003). Flavián, Guinalíu & Gurrea (2006) described electronic loyalty or online customer loyalty as a consumer's intention to purchase from internet website and that the shopper will not move to any other website. Online customer loyalty includes quality of customer care service, product quality presentation, fulfilling of delivery guarantees, accessibility, price, and confidentiality

(Reichheld & Schefter, 2000). Reichheld & Schefter (2000) recognized that the important rules for making loyalty remained the same in online trading as with offline with the exception that the rate at which economic rules shape and speed with which businesses need to adapt and improve to retain loyalty is much higher in the online trading. Further they found that in online trading the initial cost of customer procurement is higher than brick and mortar but repeat customers ended up spending twice more in their 2nd and 3rd year as compared to the first 6 months. A customer who trusts a brand is more likely to be a loyal customer, willing to buy new products in existing and new categories, willing to pay a premium and also to share a positive word of mouth (Chaudhuri & Holbrook, 2001). Online customer loyalty is according to various researchers one important component to accomplish online and stay profitable.

This study examines the relationship between behavioral and attitudinal loyalty and customer loyalty for online consumer which shopping in Thailand e-commerce and confirm that components. Retention of customers has been acknowledged as a key pillar in the long-term profitability of a business (Inieta & Sanchez, 2002; Heskett, 2002). Preserving customers have been recognized as a key pillar in taking long term income. Service quality and perceived service value are two constructions that have been studied and related alternately with the customers. Online customer loyalty has been shown to offer increased long-term effectiveness, low sales/marketing cost and more opportunities for cross-selling of products and services as well as positive word of mouth by customers (Wirtz & Lihotzky, 2003; Terblanche, 2009). Meanwhile, (Lai & Babin, 2009) indicated that, customer loyalty has been well-known as a major determinant of long-term financial performance. Online customer loyalty has been identified as a long term main determining factor. Customer loyalty is important for the survival of online businesses. Nevertheless, the long-term financial performance has a number of environmental gaps that have not been explored as antecedents (causes) of online customer loyalty. A number of relationships with customer loyalty such as service quality and service value have been developed by many scholars. However there are a number of gaps in the environmental of unexplored backgrounds of loyalty. A number of relationships had been developed that linkage for service quality, satisfaction, value, and image with loyalty (Zeithmal, 1988; Babin & Attpergi, 2009). However, the study conducted in developed countries in Europe and America are based on Western context, thus, there is a gap in this study evidence relating concepts considered in this research in a developing country like Thailand. More essentially, it has been established in the literature that context differences can lead to different components of relationships, then, it has been established in the literature that cultural differences may result in diversified association components (Lai & Babin, (2009).

This study therefore develops and empirically tests a model that 1) to confirm the components of online customer loyalty in the Thailand e-commerce industry and 2) to provide self-development for entrepreneur in Thailand e-commerce and software house industry. As an entrepreneur, they also need to come up with energetic ideas, and make good decisions about opportunities and potential

projects to ensure customer satisfaction that such efforts will lead to a higher level of online customer loyalty. Achieving online customer loyalty is one of the most important goals for entrepreneurs.

The remainder of the paper begins by presenting a literature review of the main constructs and conceptual framework. This is then followed by the research methodology. Next, research findings are presented. The paper concludes by discussing with both theoretical and managerial implications, limitations and purpose the future research.

2. LITERATURE REVIEW

In this section, we review the extant literature and develop our constructs with a view to achieving the research objectives outlined above.

Customer Loyalty

Customer loyalty can be defined as "A very deep commitment to buy back the preferred products/services consistently in the future. It means that the customers will repeat their purchases of the same product brand, despite situational influences and marketing efforts which have the potential to cause switching behavior to other products. Oliver (1999) states: Influences and marketing efforts situational despite having the potential to cause switching behavior. Customer loyalty can be defined from a behavioral, attitudinal or situational perspective (Chaudhuri & Holbrook, 2001; Uncles, Dowling & Hammond, 2003). Customer loyalty can be defined from behavior, attitude or situational perspectives. Loyalty is expressed as purchasing behavior and consumers which is shown by shoppers' choice towards specific products buying and use of a brand. Loyalty attitude is generally indicated by an emotional with an alternative of brands by the consumer. Situational loyalty depends on purchasing condition and buying. However, those three kinds of loyalty have an important role in selling, but most of enterprises prefer customer loyalty because it has emotional components. The customer loyalty is evaluated by using customer willingness to stay still, opportunities to repurchase, and the customers chance to recommend the product being used to others.

In recent literature, customer loyalty is conceptualized as having two dimensions, which are (1) behavioral and (2) attitudinal (Day, 1969; Oliver 1999). Behavioral loyalty refers to the actual repurchase behavior of a customer (Griffin & Lowenstein, 2001). The repurchase behavior indicates a loyalty for a brand or service consistently over time. Therefore, customer loyalty as behavior represents an ongoing behavioral action towards the object of interest. On the other hand, attitudinal loyalty refers to the attitude of a customer towards the product or service in the future (Dick & Basu, 1994). As an attitude, customer loyalty refers to a predisposition to engage in behaviors based on favorable evaluations of the loyalty object. When the customer shows an attitudinal loyalty, they have emotional attachment towards the brand, which signifies, repurchase intentions.

Online Customer Loyalty

The concept of customer loyalty has been extensively discussed in marketing literature. Nevertheless, the study of online customer loyalty is much more recent. For this reason, there is no consensus regarding the measurement, conceptual delimitation, and antecedents of online customer loyalty. In our research, online customer loyalty is understood from a relational perspective as the customer's willingness to maintain a stable relationship in the future and to involve in a repeat behavior of purchases and/or visits of online products and service. Using the firm's website as the first choice among alternatives, supported by favorable beliefs and positive emotions toward the online company, in spite of situational manipulates and marketing attempts that lead to transfer behavior (Toufaily, Richard & Perrien, 2013).

The model proposed in this paper examines the joint impact of a set of two loyalty determinants (Attitudinal loyalty and behavioral loyalty) on online customer loyalty.

Attitudinal Loyalty and Behavioral Loyalty

Homer and Kahle (1988) established in their value-attitude-behavior hierarchy that customer attitude drives their behavior. A positive impact of customer attitude has also been established in the offline context in studies (Morgan & Hunt, 1994). The findings have been found to be portable in the online context and have been established therein (Srinivasan, Anderson & Ponnavolu, 2002). van Oppen, Odekerken-Schröder & Wetzels (2005) found in their investigation that customer who experiences a positive attitude in the direction of website selling books and CDs will, as a result, be likely to have a positive buying intention (and hence behavioral loyalty) towards the site.

Sub-components of attitudinal loyalty and behavioral loyalty as follows:

Web Design or User Interface (DST)

Graphic user interface (GUI) is well-defined as the gateway through which e-service providers are in direct communication with customers (Gummerus, Liljander, Pura & van Riel 2004). Wolfinbarger and Gilly (2003), in their consideration of a consumer satisfaction index for online purchasing, found a strong dependence of customer satisfaction on the website design quality. Park and Kim (2003) confirmed a direct influence of quality of user interface on satisfaction since it provided physical reflection of service provider's competence in facilitating effortless service usage. While influence of user design on trust was found to diverge, Cyr (2008) found that user design variables were key qualifications to trust, satisfaction, and ultimately loyalty across cultures.

Product Assortment (AMT)

Larger product assortments have been found to have a positive association with customer experience and therefore are more attractive to customers (Chernev & Hamilton, 2009). Perception of greater diversity gets produced due to greater number of products (Broniarczyk, Hoyer, & McAlister, 1998), greater assortment gives a greater chance that customer will find what he/she is looking for (Sela, Berger & Liu, 2009) and greater assortment provides a greater likelihood of consumption in greater quantities (Kahn & Wansink, 2004). Effect of reduction in assortment for online trader revealed reduced individual transactions amounts, reduced overall sales and frequency of customers visiting (Borle et al., 2005).

Fulfillment (FFT)

Most e-commerce transactions initiated online are terminated via the offline fulfillment mode. Reliability of offline fulfillment has been found to positively affect customers' satisfaction (Semeijn, van Riel, van Birgelen & Streukens, 2005). Fulfillment has been defined as the delivery of the right product within the assured time with the product description as specified on the website and therefore in essence delivering to customer what they expected to receive (Wolfinbarger & Gilly, 2003). Allowing for fulfillment as representative of outcome service quality, Collier and Bienstock (2006) noted that getting the exact product as was ordered, receiving the product within the expected time setting and in the guaranteed condition has a positive impact on online satisfaction.

Fulfillment is also meant to include relevant features regarding prompt order confirmation and tracking of the delivery process (Bauer, Falk & Hammerschmidt, 2006). Management and shipment products has always been challenging for the online dealers. Therefore, in the examination of relationship between fulfillment and trust, studies have found a significant impact of fulfillment on trust. Reynolds (2000) found that customers are mostly concerned about order fulfillment in order to establish trust with online traders.

Perceived Value (PVT)

Perceived value is defined as overall utility evaluation of a product by a consumer based on his/her awareness of what is received versus what is given (Zeithaml, 1988). Perceived value develops its beginning from the equity concept, that refers to customers assessment of what is right or fair reward for the perceived cost of the offering (Bolton & Lemon, 1999). Woodruff (1997) maintained that while perceived value captured the customer's cognizance of relational exchange with suppliers, overall feeling derived from the interaction was captured by satisfaction. Chang and Wang (2011) established a research to examine the moderating effect of perceived value on satisfaction and loyalty. The study verified that perceived value impacted satisfaction subsequently influencing loyalty.

Security (SCT)

Wolfinbarger and Gilly (2003) described security and privacy as including security of credit card payment and of maintenance of privacy of information shared. Threat related to privacy and security of customer's information was noted as an essential barrier in the initial researches on e-commerce adoption (Hui, Teo & Lee, 2007). Szymanski and Hise (2000) found that online security was an important factor in online satisfaction and buying intention.

Satisfaction (SFT)

Yoon (2002) proposed that trust with a website may occur when loyalty to a particular brand is ascribable to past favorable online experience. Flavián et al. (2006) recommended that web site trust builds on a basis of a web site user's satisfaction with his/her past experience. Yoon (2002) found a significant positive relationship between online satisfaction and trust. Website satisfaction being a positive driver of trust was also confirmed by Horppu, Kuivalainen, Tarkiainen & Ellonen (2008).

Trust (TRT)

Preserving security and privacy of data is important as consumer's place trust in the online trader to use their data responsibly, this trust is easily lost when a consumer believes that their personal information is not being handled responsibly (Jarvenpaa & Todd, 1996). Consumer's confidence in the online trader to protection their financial information throughout the business deal process and in storage is of paramount importance for the online trader to raise or even sustain (Pavlou, Liang & Xue, 2007). A customer may be willing to share personal and monetary details with increased level of trust when the perceived level of security guarantee from the online trader meets the customer's expectations (Park & Kim, 2003).

Bhattacherjee (2001) proposed the distinction between acceptance and continuance behavior found satisfaction had a positive impact on continuance intention. A similar impact of satisfaction on continuance is expected even in the e-commerce scenario (Reichheld & Schefter, 2000). In the e-commerce, a positive association between online satisfaction and online loyalty has been observed (Anderson & Srinivasan, 2003). Strength of positive relationship between satisfaction and loyalty has been found to be stronger in the online environment than in offline setting (Shankar, Smith & Rangaswamy, 2003). In relationship to attitudinal loyalty, Chiou and Droge (2006) found that overall satisfaction is positively related with attitudinal loyalty. A causality link between satisfaction and behavioral loyalty was established by Rauyruen and Miller (2007) in the B2B scenario. A similar conclusion was derived by Trif (2013) who established that satisfaction is positively correlated to attitudinal and behavioral loyalty.

Online customer loyalty is likely to influence a customer's willingness to stay, repurchase probability, and likelihood that they will recommend the brand (Johnson, Herrmann & Huber, 2006). Measuring online customer behavioral loyalty by using the opinion of Griffin (1997) which stated that, a behavioral loyalty customer is one who: (1) makes regular repeat purchases (RPT) (2) purchases across product and service lines (CPT) (3) refer others (TOT), and (4) demonstrates an immunity to the pull of the competition (IMT).

Hence, measuring online customer loyalty should combine the two conceptualizations, which are embedding in the characterization. Behavior and attitude loyalty can be measured by looking at the consequence of each loyalty's behavior factor. The behavioral loyalty is indicated by (1) repurchasing behavior from the same service provider (Jones, beatty, & Mothersbaugh, 2000), (2) lower switching intentions (Bansal & Taylor, 1999). While attitudinal loyalty is indicated by (1) recommending behavior (Butcher, Ken, Sparkes, & O'Callaghan, 2001), (2) Strong affection with the service providers (Mitra & Lynch, 1995) and (3) repurchase intention in the future (Narayandas, 1997).

3. CONCEPTUAL FRAMEWORK

We adopted the measures for DST, AMT, FFT, OVT, SCT, SFT, TRT, RPT, CPT, TOT, and IMT from scales validated in prior studies (see Table1).

Table 1: Measurement Items for the Constructs

Construct	Sources
Web design or user interface	Cyr, 2008; Pham & Ahammad, 2017
Product assortment	Carlson, O'Cass & Ahrholdt, 2015
Fulfillment	Pham & Ahammad, 2017
Perceived value	Picón-Berjoyo, Ruiz-Moreno & Castro, 2016; Silva, & Gonçalves, 2016
Security	Pham & Ahammad, 2017
Satisfaction	Cyr, 2008; Dharmesti & Nugroho, 2013; Silva, & Gonçalves, 2016
Trust	Cyr, 2008; Silva, & Gonçalves, 2016
Makes a regular repeat purchase	Griffin, 1997; Pham & Ahammad, 2017
Purchases across product and service lines	Griffin, 1997; Picón-Berjoyo, Ruiz-Moreno & Castro, 2016

Table 1: Measurement Items for the Constructs (Cont.)

Construct	Sources
Refers others	Griffin, 1997; Pham & Ahammad, 2017
Demonstrates in immunity to the pull of the competition	Griffin, 1997

Research conceptual framework is presented in Figure 1 below.
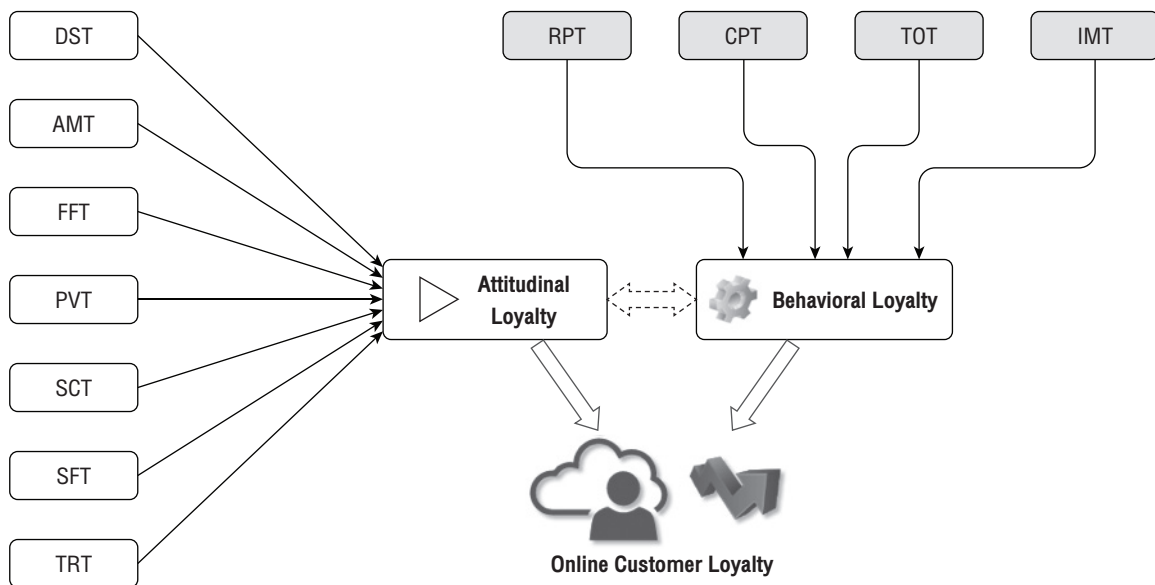
Figure 1: Research Conceptual Framework

Based on figure 1, it can be seen that customer attitudinal loyalty and customer behavioral loyalty will be the main relationship in this research. The relationship between attitudinal loyalty and behavioral loyalty has been the outstanding of many researches. Both in its attitudinal and behavioral dimensions, online customer loyalty has a large potential of differentiation and is a source of competitive advantage. In the model of Figure 1, the reflective measurement model was displayed. A reflective measurement model occurs when the indicators of a construct are considered to be caused by that construct.

4. RESEARCH METHODOLOGY

An online questionnaire was used for the purpose of data collection. This study collected data from Thai consumers who shop online through e-commerce platforms (population). This study used a judgement sampling technique. The samples in this study can be confidently assumed to be representatives of the e-commerce industry in Thailand because judgmental sampling is a non-probability sampling technique where authors select units to be sampled based on our knowledge and professional judgment.

The online questionnaire was used for three primary reasons: i) the study platform was consistent with the context of our study focusing on online shopping behavior ii) it allowed a larger reach resulting in a more representative study and iii) it allowed for collection of standardized common data from respondents as they give answers to same fixed-response questions and this facilitated direct comparisons between responses with the use of statistical analyses (Saunders, Lewis & Thornhill, 2003). A total of 1,000 respondents were reached via Google form. Out of these, 356 responses were received resulting in a response rate of 35.6 percent. This response rate is considered acceptable for the response rate for a mail survey because it is greater than 20% (Aaker, Kumar, and Day, 2001). Furthermore, the data which could be used for quantitative analysis was 356 questionnaires. According to Kline (2011) a typical sample size in studies where SEM is used is about 200–500 cases. However, minimum sample sizes of 400–500 cases may be needed when estimating even relatively small models. In addition, Maccallum, Widaman, Zhang, and Hong (1999) explained that there are wide ranges of sample size in factor analysis. However, there are rating scales for adequate sample sizes in factor analysis: 100 = poor, 200 = fair, 300 = good, 500 = very good and 1,000 or more = excellent. As a result, using 356 cases in this study is good to conduct a factor analysis.

There were 50 items in the questionnaires including demographics data. Responses to the statements were measured by a five-point Likert scale: "1" denoted as entirely disagree to "5" denoted as entirely agree). The scale was developed to measure online customer loyalty. The data used to develop and validate the scale were obtained from the literature. In order to ensure content validity of the measurements, the index of Item-Objective Congruence (IOC) used in test development for evaluating content validity. In each item, the digital marketing experts that are looking for high growth, enlarged sales performance and enhanced brand visibility online are asked to determine the content validity score. Cronbach's alpha is a tool for assessing the reliability of scales. In Table 2, Cronbach's alpha in each item is shown. There are varying Cronbach's alpha scores but overall, the Cronbach's alpha score was 0.921 which is greater than 0.70. This suggests that the factors have good internal consistency reliability and therefore all questionnaires are reliable for testing.

Data were subsequently analyzed using the Structural Equation Modelling (SEM) method. SEM is a forceful technique that can integrate complex path models with latent variables. Using SEM, we can indicate confirmatory factor analysis (CFA) model. CFA was used to confirm how well the measured variable represents the constructs. The CFA method has the ability to assess the unidimensionality, reliability and validity of a latent construct. We need to perform CFA for all latent constructs involved in this study before modeling their inter-relationship in a structural model. With CFA, any item that does not fit the measurement model as a result of low factor loading should be removed from the model. The fitness of a measurement model is indicated through reliable fitness indexes.

Table 2: The Sample of Cronbach's Alpha in Each Group Questionnaire

Items	Factor Loadings	Cronbach's Alpha
Web design or user interface	0.735–0.771	0.914
Product assortment	0.737–0.765	0.914
Fulfillment	0.786–0.842	0.912
Perceived value	0.806–0.820	0.910
Security	0.780–0.856	0.912
Satisfaction	0.847–0.788	0.908
Trust	0.809–0.819	0.910
Makes a regular repeat purchase	0.717–0.836	0.912
Purchases across product and service lines	0.714–0.879	0.911
Refers others	0.685–0.888	0.914
Demonstrates in immunity to the pull of the competition	0.646–0.860	0.916

5. RESEARCH FINDING

The demographic details of the respondents are reported in Table 3. Among the respondents, 75.30% are male, 83.10% are Generation Y, 93.30% are single, and 80.30% has no experience. As for the monthly income level, majority of the customers earn less than 15,000 THB and payment method is internet banking.

Table 3: Demographic Statistics

Characteristic	Percent	Characteristic	Percent
Gender		**Income per month**	
Male	75.30	< 15,000 THB	86.50
Female	24.70	15,001–25,000 THB	5.90
Generation		25,001–40,000 THB	4.50
Baby Boomer	1.10	Over 40,000 THB	3.10
Generation X	6.20	**Devices access to internet**	
Generation Y	83.10	Smart phone	86.20
Generation Z	9.60	Tablet	1.70
Status		Laptop	8.70
Single	93.30	Personal Computer	3.40
Mary	5.90	**Payment Methods**	
Divorce	0.80	Credit card/Debit card	13.20
Experience		Internet banking	29.50
No experience	80.30	Pay when receive goods	14.90
1–6 Year	9.60	E-pocket money	5.10
7–10 Year	3.90	Bank counter	13.20
Over 10 Year	6.20		
Education			
Lower bachelor degree	16.60		
Bachelor degree	76.40		
Upper Graduate	7.00		

In order to confirm the components of online customer loyalty in Thailand e-commerce industry, we used AMOS to conduct a confirmatory factor analysis of the two online customer loyalty dimensions. The statistical output showed acceptable threshold levels and is consistent with the concept of Sorbon (1982), Bollen (1989) and Hair, Anderson, Tatham & Black (1998).

Table 4: CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default	30	32.080	25	0.156	1.283

Chi-Square, the chi-square for the model in AMOS is called CMIN. If the chi-square is not significant, the model is regarded as acceptable. From Table 4, the p-value is not significant (0.156) which is greater than 0.05. Relative chi-square (1.283) is also less than 2.0. Therefore, this model is good fit for the observation data (Junkao, Chandprapalert & Jarinto, 2017).

Table 5: Model Fit Indexes

Model	RMR	GFI	AGFI	PGFI	CMIN/DF
Default	0.013	0.983	0.962	0.447	1.283

The root mean square residual (RMR) ranges from 0 to 1, with a value of 0.08 or less being indicative of an acceptable model. In this model, RMR is 0.013 which is less than 0.08 therefore this model is acceptable fit.

Goodness of Fit Index (GFI) and the adjusted goodness of fit index (AGFI) range from 0 (poor fit) to 1 (perfect fit). If the both index is close to 1, the model is perfect fit but generally GFI and AGFI is greater than 0.90, the model considers fit. From Table 5, GFI and AGFI are 0.983 and 0.962 which are greater than 0.90 therefore this model is acceptable fit. Overall, the data indicate a good fit for the model. Consequently, this study can conclude that the online customer loyalty structure model is valid (detail in Figure 2).

Moreover, the statistical data in Table 6 shows that attitudinal loyalty component significantly impacts on online customer loyalty in Thailand e-commerce industry compare with other component because this component has the highest value of standardized regression weight (0.840), followed by behavioral loyalty (0.630).

Table 6: Standardized Regression Weights

Component	Estimate
Attitude ← OCL	0.840
Loyalty ← OCL	0.630

Chi-square = 32.080 df = 25 p-value = .156
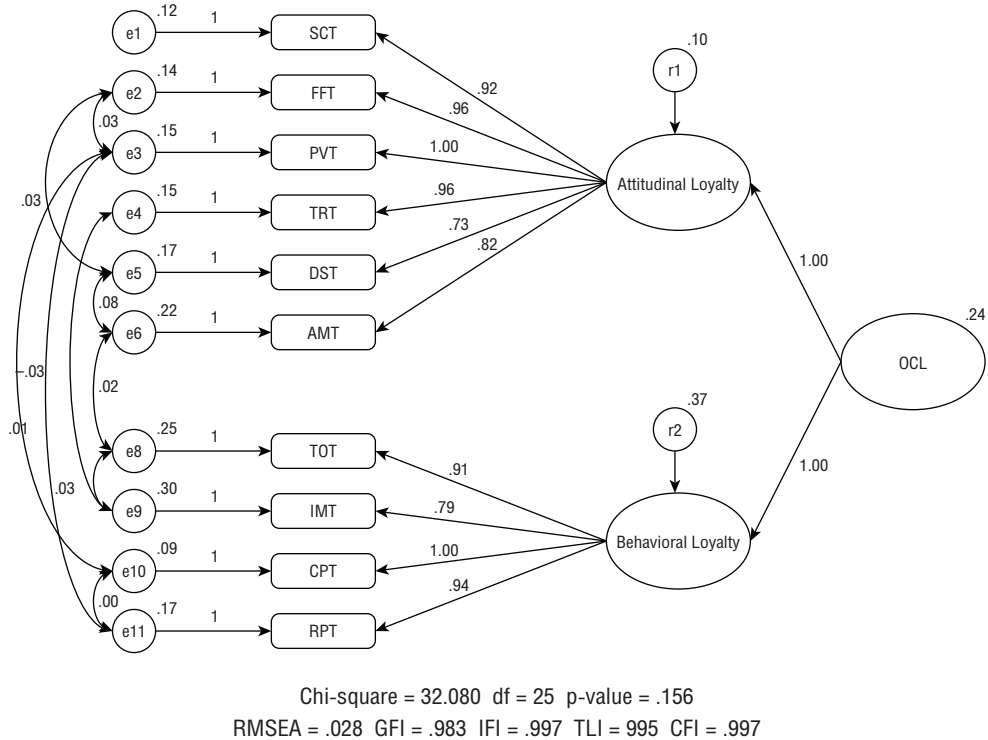RMSEA = .028 GFI = .983 IFI = .997 TLI = 995 CFI = .997

Figure 2: Confirmatory Factor Analysis

6. DISCUSSION

E-commerce cannot survive without understanding the online customer loyalty formation process. Online customer loyalty has a direct effect on the revenue and profitability of a company. Hence, investigation of the most critical factors leading to online consumer loyalty is important for both practitioners and academics. This study examined the theoretical linkage between attitudinal loyalty, behavioral loyalty, and online customer loyalty by SEM method. The results confirm that consumers in Thailand e-commerce industry have two components including attitudinal loyalty and behavioral loyalty to application according to Day (1969), Yi (1990) and Oliver (1999).

Nevertheless, there might be differing degrees of online customer loyalty impact in websites level for instance, behavioral loyalty component significantly impacts on some e-commerce websites whereas attitudinal loyalty component will significantly impact on other e-commerce websites. Consequently, e-commerce and software house entrepreneurship firstly need to self-diagnose on online customer loyalty components by self-assessment of their website. With self-assessment, the scores will show that online customer loyalty component is the most important for them and will be the first priority to solve the issues because each e-commerce website has differing degrees of online customer loyalty which has different techniques and methods to increase the number of customers. For example, behavioral loyalty component consists of four variables: (1) makes regular repeat purchases, (2) purchases across product and service lines, (3) refer others; and (4) demonstrates an immunity to the pull of the competition. Hence, Thailand e-commerce and software house entrepreneurship should emphasis on these variables by using various techniques and methods in order to retention and increase online customer loyalty in their businesses such as;

■ Software house needs to ensure a quality of user interface on satisfaction since it provided physical reflection of service provider's competence in facilitating effortless use of service (Park & Kim, 2003).

■ Software house needs to create perception of greater variety gets created due to greater number of products greater assortment gives a greater chance that customer will find what they are looking for and greater assortment provides a greater likelihood of consumption in greater quantities (Broniarczyk, Hoyer, & McAlister, 1998; Kahn & Wansink, 2004; Sela et al., 2009).

■ Thailand e-commerce entrepreneurship should provide getting the exact product as was ordered, receiving the product within the expected time frame and in the promised condition has a positive impact on online satisfaction (Collier & Bienstock, 2006).

■ Thailand e-commerce entrepreneurship needs to define as overall assessment of the utility of a product by a consumer based on his/her perception of what is received versus what is given (Zeithaml, 1988).

■ Thailand e-commerce and software house entrepreneurship need to build security and/or privacy as including security of credit card payment and of maintenance of privacy of information sharing (Wolfinbarger & Gilly, 2003; Hui et al., 2007).

■ Thailand e-commerce entrepreneurship need to make maintaining security and privacy of data since it is important as consumer's trust in the online retailer may be dented purely on the basis of their concern about misuse of their personal information (Jarvenpaa & Todd, 1996).

Looking at the two major components, it is desired to combine the two dimensions. This will create a construct that covers the disadvantages of adopting only one component. The approach of online customer loyalty as a bi-dimensional construct facilitates the identification of different customer's segments, according to their loyalty level and also the development of marketing strategies specially designed for acquiring specific categories of customers (Bobalca, 2013). Consequently, the research will confirm the two conceptualizations of both behavioral and altitudinal loyalty. This integration is reflected by the definition of loyalty by Oliver (2010) that is previously mentioned and will be adopted by this research.

7. RESEARCH CONTRIBUTIONS

Theoretical Contributions

The basic aim of this study is the validation and development of a model that helps increasing knowledge in the marketing area, while being appropriate in the world of business management. Since the study intends to contribute to the development of theoretical knowledge, an attempt was made in order to systematize relationship marketing determinants, as well as their relation with customer loyalty within an online context.

The main theoretical contributions of this research was in investigating the relationship between behavioral and attitudinal loyalty and online customer royalty as well as confirming that components. These theoretical implications are relevant both for internet and marketing research and are particular important since e-commerce has recently undergone main developments, both from a scientific point of view and involving managerial implications.

Managerial Implications

The results provide entrepreneurs in Thailand e-commerce and software house companies with a better understanding of the online components of customer loyalty. The results of this study have important implications for companies, particularly within the context of managing online services facilitated by technologies. Companies often invest in websites with the goal of generating online customer loyalty. Companies can benefit from knowing what dimensions can be shaped to create online customer loyalty and under what situations these attributes are likely to fail or succeed.

This research provides a self-development for online customer loyalty to Thailand e-commerce and software house companies because each online customer loyalty variable requires different solution ability online management strategies and novelty techniques. It presents two alternative ways, namely improving behavioral loyalty, and enhancing attitudinal loyalty, which companies can manipulate to create online loyalty in customers. More loyal customers tend to be more profitable and allow the vendor to exceed competitors with smaller operating expenses.

Limitations and Purpose the Future Research

This study has some limitations that should be addressed in future research. The first limitation is related to the sample, and in particular to the use of a non-probability sampling procedure. Second, we used data from an online consumer within a single industry, suggesting the results cannot be immediately applied to other industries and/or to business-to-business (B2B) contexts. Consequently, to provide a more comprehensive model, future research can duplicate our conceptual model in B2B markets and other industries. Lastly, future research should also investigate the proposed conceptual model by using different data and introducing new variables, such as habitual buying versus rational buying to generalize the research findings. A further possibility is to conduct a longitudinal study in order to enhance the current understanding of the effects of online customer loyalty.

8. CONCLUSION

This study found that the online customer loyalty components in Thailand's e-commerce industry conform to exploratory factor analysis previous research in which the online customer loyalty components consist of attitudinal loyalty and behavioral loyalty. The results confirm that all ten of those variables except satisfaction variable which are web design or user interface, product assortment, fulfillment, perceived value, security, trust, makes regular repeat purchases, purchases across product and service lines, refer others, and demonstrates an immunity to the pull of the competition are in the online customer loyalty components for Thailand's e-commerce industry. Consequently, this study provides the novel attitudinal loyalty combination in and behavioral loyalty components for Thai context. Thailand e-commerce entrepreneurship can use this integration to make a diagnosis themselves in order to provide potential management planning and strategies to retention or increase the level of online customer loyalty in Thailand e-commerce industry. Finally, we highlight that attitudinal loyalty and behavioral loyalty influence online customer loyalty. It also demonstrates that technology is an important contributor to better service quality. This study represents an important step toward developing our theoretical understanding of the determinants of online customer loyalty and under what situations they matter most.

REFERENCES

Aaker, D. A., Kumar, V., & Day, G. S. (2001). *Marketing research*. New York: John Wiley and Sons.

Anderson, R. E., & Srinivasan, S. S. (2003). E-satisfaction and E-loyalty: A contingency framework. *Psychology & Marketing, 20*(2), 123–138.

Babin, B. J., & Attaway, J. S. (2009). Atmospheric affect as a tool for creating value and gaining share of customer. *Journal of Business Research, 49*(2), 91–99.

Bansal, H., & Taylor, S. (1999). The service provider switching model: A model of consumer switching behavior in service industry. *Service Research, 2*(2), 200–218.

Bauer, H. H., Falk, T., & Hammerschmidt, M. (2006). eTransQual: A transaction process-based approach for capturing service quality in online shopping. *Journal of Business Research, 59*(7), 866–875.

Bhattacherjee, A. (2001). Understanding information systems continuance: An expectation- confirmation model. *MIS Quarterly, 25*(3), 351–370.

Bobalca, C. (2013). Study of customers' loyalty: Dimensions and facets. *Management & Marketing, 9*, 104–114.

Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research, 17*(3), 303–316.

Bolton, R. N., & Lemon, K. N. (1999). A dynamic model of customers' usage of services: Usage as an antecedent and consequence of satisfaction. *Journal of Marketing Research, 36*(2), 171–186.

Borle, S., Boatwright, P., Kadane, J. B., Nunes, J. C., & Shmueli, G. (2005). The effect of product assortment changes on customer retention. *Marketing Science, 24*(4), 616–622.

Broniarczyk, S. M., Hoyer, W. D., & McAlister, L. (1998). Consumers' perceptions of the assortment offered in a grocery category: The impact of item reduction. *Journal of Marketing Research, 35*(2), 166–176.

Butcher, K., Ken, Sparkes, B., & O'Callaghan, F. (2001). Evaluative and rational influences on service loyalty. *International Journal of Service Industry Management, 12*(4), 310–327.

Carlson, J., O'Cass, A., & Ahrholdt, D. (2015). Assessing customers perceived value of the online channel of multichannel retailers: A two country examination. *Journal of Retailing and Consumer Services, 27*, 90–102.

Chang, H. –H., & Wang, H. -W. (2011). The moderating effect of customer perceived value on online shopping behaviour. *Online Information Review, 35*(3), 333–359.

Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing, 65*(2), 81–94.

Chernev, A., & Hamilton, R. (2009). Assortment size and option attractiveness in consumer choice among retailers. *Journal of Marketing Research, 46*(3), 410–420.

Chiou, J. -S., & Droge, C. (2006). Service quality, trust, specific asset investment and expertise: Direct and indirect effects in a satisfaction-loyalty framework. *Journal of the Academy of Marketing Science, 34*(4), 613–627.

Collier, J. E., & Bienstock, C. C. (2006). Measuring service quality in e-retailing. *Journal of Service Research, 8*(3), 260–275.

Cyr, D. (2008). Modeling web site design across cultures: Relationships to trust, satisfaction and E-loyalty. *Journal of Management Information Systems, 24*(4), 47–72.

Dharmesti, M. D. D., & Nugroho, S. S. (2013). The antecedents of online customer satisfaction and customer loyalty. *Journal of Business and Retail Management Research, 7*(2), 57–68.

Day, G.S. (1969). A two-dimension concept of brand loyalty. *Journal of Advertising Research, 9*(3), 29–36.

Dick, A., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science, 22*(2), 99–113.

Flavián, C., Guinalíu, M., & Gurrea, R. (2006). The role played by received usability, satisfaction and consumer trust on website loyalty. *Information & Management, 43*(1), 1–14.

Griffin, J., & Lowenstein, M. W. (2001). *Customer winback: How to recapture lost customers and keep them loyal*. San Francisco: Jossey-Bass.

Griffin, J. (1997). *Customer loyalty, how to earn it, how to keep it*. New York: Lexington Books.

Gummerus, J., Liljander, V., Pura, M., & van Riel, A. (2004). Customer loyalty to content-based web sites: The case of an online health-care service. *Journal of Services Marketing, 18*(3), 175–186.

Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis* (5th Edition). Upper Saddle River. NJ: Prentice Hall.

Heskett, J. L. (2002). Beyond customer loyalty. *Managing Service Quality, 12*(6), 355–357.

Homer, P. M. & Kahle, L. R. (1988). A structural equation test of the value-attitude-behavior hierarchy. *Journal of Personality and Social Psychology, 54*(4), 638–646.

Horppu, M., Kuivalainen, O., Tarkiainen, A., & Ellonen, H. -K. (2008). Online satisfaction, trust and loyalty and the impact of the offline parent brand. *Journal of Product & Brand Management, 17*(6), 403–413.

Hui, K. -L., Teo, H. H., & Lee, S. -Y. T. (2007). The value of privacy assurance: An exploratory field experiment. *MIS Quarterly, 31*(1), 19–33.

Iniesta, M. A., & Sanchez, M. (2002). Retail customer commitment and service segmentation, *International Review of Retail, Distribution and Customer Research, 12*(3), 261–279.

Jarvenpaa, S. & Todd, P. A. (1996). Consumer reactions to electronic shopping on the world wide web. *International Journal of Electronic Commerce, 1*(2), 59–88.

Johnson, M. D., Herrmann, A., & Huber, F. (2006). The evolution of loyalty intentions. *Journal of Marketing, 70*, 122–132.

Jones, M. A., Mothersbaugh, D. L., & Beatty, S. E. (2000). Switching barriers and repurchase intentions in services. *Journal of Retailing, 76*(2), 259–74.

Jones, T., & Sasser, W. (1996). *Why satisfied customers defect*. Retrieved January 9, 2017, from https://hbr.org/1995/11/why-satisfied-customers-defect

Junkao, P., Chandprapalert, A., & Jarinto, K. (2017). Talent risk components in the Thailand automobile industry. *Journal of Business Administration, 40*(154), 58–77.

Kahn, B. & Wansink, B. E. (2004). The influence of assortment structure on perceived variety and consumption quantitites. *Journal of Consumer Research, 30*(4), 519–533.

Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York: Guilford.

Ko, H., Jung, J., Kim, J. Y., & Shim, S. W. (2004) Cross-cultural differences in perceived risk of online shopping. *Journal of Interactive Advertising, 4*(2), 20–29.

Lai, F. Griffin, M., & Babin, B. (2009). How quality, value, image and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research, 62*, 980–986.

MacCallum, R. C., Windaman, K. F., Zhang S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Method, 4*(1), 84–99.

McQuitty, S., & Peterson, R. T. (2000). Selling home entertainment on the internet: An overview of a dynamic marketplace. *Journal of Consumer Marketing, 17*(3), 233–248.

Mitra, A., & Lynch, J. (1995). Toward a reconciliation of market power and information theories of advertising effects on price elasticity. *Consumer Research, 21*(4), 644–660.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20–38.

Narayandas, N. (1997). *Measuring and managing the consequences of customer loyalty: An empirical investigation*. Harvard Business School, Cambridge.

Nulty, D. (2008). The adequacy of response rates to online and paper surveys: what can be done? *Assessment & Evaluation in Higher Education, 33*(3), 301–314.

Oliver, R. (2010). *Satisfaction: A behavioral perspective on the consumer*. London: Routledge.

Oliver, R. L. (1999). Whence consumer loyalty. *Journal of Marketing, 63*(4), 33–44.

Park, C. -H., & Kim, Y. -G. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail & Distribution Management, 31*(1), 16–29.

Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and mitigating uncertainty in online environments: A principal-agent perspective. *MIS Quarterly, 31*(1), 105–136.

Pham, T. S. H. & Ahammad, M. F. (2017). Antecedents and consequences of online customer satisfaction: A holistic process perspective. *Technological Forecasting and Social Change, 124*, 332–342.

Picón-Berjoyo, A., Ruiz-Moreno, C., & Castro, I. (2016). A mediating and multigroup analysis of customer loyalty. *European Management Journal, 34*(6), 701–713.

Rauyruen, P. & Miller, K. E. (2007). Relationship quality as a predictor of B2B customer loyalty. *Journal of Business Research, 60*(1), 21–31.

Reichheld, F. F., & Schefter, P. (2000). E-loyalty: Your secret weapon on the web. *Harvard Business Review, 78*, 105–113.

Reynolds, J. (2000). E-commerce: A critical review. *International Journal of Retail & Distribution Management, 28*(10), 417–444.

Sela, A., Berger, J., & Liu, W. (2009). Variety, vice and virtue: How assortment size influences option choice. *Journal of Consumer Research, 35*(6), 941–951.

Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research method for business students* (3rd edition). New York: Prentice Hall.

Semeijn, J., van Riel, A. C. R., van Birgelen, M. J. H., & Streukens, S. (2005). E-services and offline fulfilment: How e-loyalty is created. *Managing Service Quality: An International Journal, 15*(2), 182–194.

Shankar, V., Smith, A. K., & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing, 20*(2), 153–175.

Silva, G. M., & Gonçalves, H. M. (2016). Causal recipes for customer loyalty to travel agencies: Differences between online and offline customers. *Journal of Business Research, 69*(11), 5512–5518.

Srinivasan, S. S., Anderson, R., & Ponnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Journal of Retailing, 78*(1), 41–50.

Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: An initial examination. *Journal of Retailing, 76*(3), 309–322.

Terblanche, N. S. (2009). Do quality, value, satisfaction and loyalty differ among different cultural groups of KFC customers, *ANZMAC*, 1–8.

The international trade administration. (2017). *Thailand-eCommerce*. Retrieved January 8, 2017, from https://www.export.gov/article?id=Thailand-ecommerce

Toufaily, E., Ricard, L., & Perrien, J. (2013). Customer loyalty to a commercial website: Descriptive meta-analysis of the empirical literature and proposal of an integrative model. *Journal of Business Research, 66*(9), 1436–1447.

Trif, S. -M. (2013). The influence of overall satisfaction and trust on customer loyalty. *Management & Marketing, 8*(1), 109–128.

Uncles, M. D., Dowling, G. R., & Hammond, K. (2003). Customer loyalty and customer loyalty programs. *Journal of Consumer Marketing, 20*(4), 294–316.

van Oppen, C., Odekerken-Schröder, G., & Wetzels, M. (2005). *Experiential value: A hierarchical model, the impact on e-loyalty and a customer typology* (Working Paper). Maastricht University.

Wirtz, B. W., & Lihotzky, N. (2003). Customer retention management in the B2C electronic business. *Long Range Planning, 36*(6), 517–532.

Wolfinbarger, M., & Gilly, M. C. (2003). eTailQ: Dimensionalizing, measuring and predicting etail quality. *Journal of Retailing, 79*(3), 183–198.

Woodruff, R. B. (1997). Customer value: The next source of competitive advantage. *Journal of the Academy of Marketing Science, 25*(2), 139–153.

Yoon, S. -J. (2002). The antecedents and consequences of trust in online-purchase decisions. *Journal of Interactive Marketing, 16*(2), 47–63.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing, 52*(3), 2–22.

Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we need to learn. *Journal of the Academy of Marketing Science, 28*(1), 67–85.