

## แบบจำลองความตั้งใจกลับมาซื้อสินค้าของลูกค้า: การศึกษาระบบพาณิชย์อิเล็กทรอนิกส์แบบ B2C ในประเทศไทย

### A MODEL OF AN EXPERIENCED CUSTOMER'S REPURCHASE INTENTIONS: A STUDY OF B2C E-COMMERCE IN THAILAND

ไอริณย์ สมบูรณ์\*

Irin Somboon\*

คณะวิทยาศาสตร์และเทคโนโลยี มหาวิทยาลัยอัสสัมชัญ

Vincent Mary School of Science and Technology, Assumption University.

\*Corresponding author, E-mail: irin@northcm.ac.th

#### บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาการประยุกต์ใช้คุณภาพเว็บไซต์ (Website Quality) ความยุติธรรม (Justice) การรับรู้ถึงความง่ายในการใช้งาน (Perceived Ease of Use) การรับรู้ถึงประโยชน์ที่เกิดจากการใช้งาน (Perceive Usefulness) ความไว้วางใจ (Customer Trust) ทักษะคิดต่อการซื้อสินค้าออนไลน์ (Attitude Toward Online Shopping) และความจงรักภักดี (Customer Loyalty) กับทฤษฎียืนยันความคาดหวัง (Expectation-Confirmation Theory (ECT)) เพื่อศึกษาความตั้งใจกลับมาซื้อสินค้าของลูกค้าในระบบพาณิชย์อิเล็กทรอนิกส์แบบ B2C ของประเทศไทย ซึ่งโมเดลทฤษฎียืนยันความคาดหวัง (ECT) ใช้สำหรับทดสอบความเชื่อและผลกระทบที่มีอิทธิพลต่อความตั้งใจกลับมาใช้สารสนเทศ ในการศึกษาครั้งนี้ได้ขยายโมเดลทฤษฎียืนยันความคาดหวัง (ECT) โดยเพิ่มคุณภาพเว็บไซต์ ความยุติธรรม การรับรู้ถึงความง่ายในการใช้งาน การรับรู้ถึงประโยชน์ที่เกิดจากการใช้งาน ความไว้วางใจ ทักษะคิดต่อการซื้อสินค้าออนไลน์ และความจงรักภักดี เพื่อแสดงให้เห็นแนวทางที่เหมาะสมต่อความตั้งใจกลับมาซื้อสินค้า การทดสอบและพัฒนาโมเดลได้จากการเก็บข้อมูลกลุ่มตัวอย่างที่มีประสบการณ์ในการซื้อสินค้าออนไลน์ จำนวน 401 คน ซึ่งผลลัพธ์ชี้ชัดว่า ความไว้วางใจมีผลต่อความพึงพอใจและความจงรักภักดี ความพึงพอใจมีผลต่อความจงรักภักดี และทักษะคิดต่อการซื้อสินค้าออนไลน์ ทั้งหมดนี้มีผลกระทบอย่างมีนัยสำคัญต่อความตั้งใจกลับมาซื้อสินค้า ดังนั้นการวิจัยนี้เชื่อว่าทฤษฎีสนับสนุนที่ค้นพบรวมถึงการตีความรายละเอียดของผลการปฏิบัติสามารถนำไปการดำเนินงานและพัฒนาระบบพาณิชย์อิเล็กทรอนิกส์ของประเทศไทยต่อไป

คำสำคัญ: ทักษะคิด ทฤษฎียืนยันความคาดหวัง ความจงรักภักดี ความตั้งใจกลับมาซื้อสินค้า ความพึงพอใจ ความไว้วางใจ

### **Abstract**

The purpose of this research is to investigate the applicability of including “website quality, justice, perceived ease of use, perceive usefulness, customer trust, attitude toward online shopping and customer loyalty” in the expectation confirmation theory (ECT) when studying the intention to repurchase on B2C e-commerce of customers in Thailand. An original ECT model examines cognitive beliefs and affects that influence one’s intention toward continual use of information system. In this study, for the sample collected, an extended ECT model with an additional path from the website quality, justice, perceived ease of use, perceive usefulness, customer trust, attitude toward online shopping and customer loyalty to repurchase intention is shown to provide a better fit than the path from all path to repurchase intention. The model is tested and developed using data collected from a sample of 401 experienced online shoppers. The results indicate that customer trust to customer satisfaction, customer trust to customer loyalty, customer satisfaction to customer loyalty, and attitude toward online shopping, all contributed significant impact to the repurchase intention. Thus, this research believes that a theoretical contribution the findings include a detailed interpretation of practical implications for those responsible for the operation and development of B2C e-commerce.

**Keywords:** Attitude, Expectation-Confirmation Theory (ECT), Customer Loyalty, Repurchase Intention, Customer Satisfaction, Customer Trust

### **Introduction**

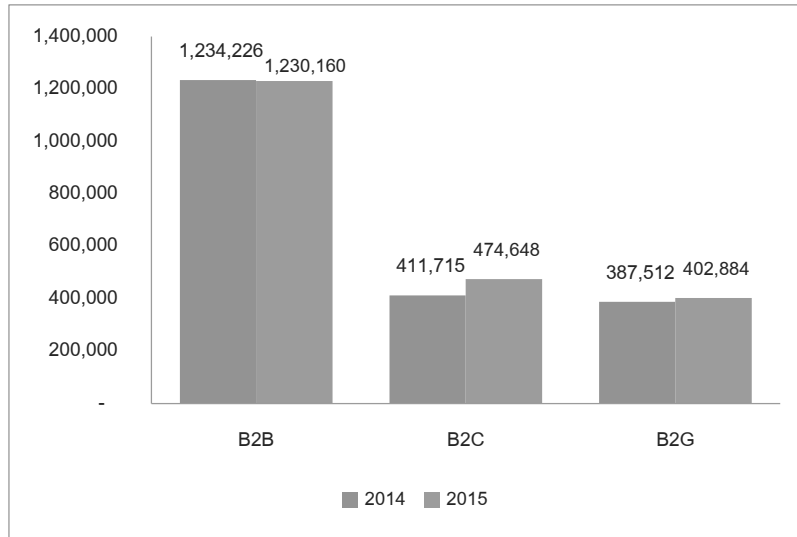
Online repurchase intention is an important issue for e-commerce and it is critical to the success of online stores for vendors to understand how to encourage and improve a customer’s continued use of an e-commerce website. Given increasing adoption of online purchasing the key to sustained growth of the e-commerce industry lies more with understanding what motivates repurchasing than initial purchasing. This is because repurchasing customers constitute the pool for developing a base of loyal patrons who tend to spend more and purchase more often.

In 2015, the Thailand government issued a digital economy policy in order to

increase the value and efficiency of the national economy and increase the values of products and services in the nation. The most important contributions from a digital economy are increases in the efficiency and effectiveness of economic activities in organizations from both the public and private sectors. Moreover, the digital economy supports strong marketing strategies due to the extensive information about a customer’s online purchasing behaviors which is able to be analyzed and used in more subtle ways. In an age of borderless trade e-commerce is a key mechanism in the development of national competitiveness in both local and global trade and it contributes significantly

in the movement of the nation towards a knowledge-based economy. Figure 1 illustrates the changes in the values of Business to Business (B2B), Business

to Customer (B2C), and Business to Government (B2G) e-commerce activities for years 2014 and 2015 in Thailand.



**Figure 1:** The values e-commerce activities in Thailand in 2014 and 2015  
(Source: *Electronic Transactions Development Agency 2015*).

From figure 1 it is evident that the value of B2B e-commerce is developed and relatively stable. In comparison the values of B2C and B2G e-commerce are significantly less but they are increasing especially in relation to B2C e-commerce. The rise in the value of e-commerce in Thailand creates competition among entrepreneurs to find ways in which to access their customers and entrepreneurs have been interested in applying e-commerce to promote and expand their business and become outstanding in competitive markets. It is important for online vendors to understand how to improve a customer's continued use of an e-commerce website. In this context Koufaris [24] notes that online

customers have "double identities as both shoppers and computer users" and consequently efforts to encourage repurchasing behavior must pay attention to not only the attractiveness of products and services but also the "user friendliness" of the technology used to interact with the customer.

This study is motivated by the need to understand factors that influence a customer to continue to purchase products or services through B2C websites in Thailand. Based on the findings from previous studies, an extended version of the Expectation-Confirmation Theory (ECT) model proposed by Oliver [31] was developed as the theoretical model for explaining an individual's intention to repurchase online using B2C

e-commerce. The analysis and development of this theoretical causal model leads to findings that contribute to an improved theoretical understanding of what drives a customer's repurchase intentions as well as practical advice for e-commerce providers to enable them to construct and manage an e-commerce system more appropriately and to make e-commerce systems more interesting for customers.

### **Objectives**

The purpose of this research is to investigate the applicability of including "website quality, justice, perceived ease of use, perceive usefulness, customer trust, attitude toward online shopping and customer loyalty" in the expectation confirmation theory (ECT) when studying the intention to repurchase on B2C e-commerce of customers in Thailand.

#### **Research Questions**

The study addresses the following four related research questions:

**Question 1:** *What are the factors that affect a customer's intention to repurchase in the context of B2C e-commerce in Thailand?*

**Question 2:** *What are the relationships among the factors identified in Question 1?*

**Question 3:** *Which factors identified in Question 1 have a significant causal effect on a customer's intention to repurchase?*

**Question 4:** *What are the theoretical and practical implications of the answer to Questions 1 to 3?*

### **Methods**

A cross-sectional field study design was used to collect data using a questionnaire designed to measure the variables in the theoretical model. English and Thai language versions of the questionnaire were prepared and reviewed by a focus group of five B2C customers representing the target population. Suggested modifications were included in revised versions of the questionnaire which was then administered in a pilot study using a sample of 10 suitable participants. Their responses and comments were noted and any necessary modifications were incorporated into the final versions of the questionnaire and the Thai language version was then used in the full study. An abbreviated and notated English language version of the final questionnaire is shown in Appendix A1.

The target population included Thai individuals who were at least 15 years of age with at least one month of online shopping experience. The size of this target population in Thailand was unknown although it was expected to be large. Consequently, with a 95 percent confidence interval and a precision of 5 percent the minimum sample size was determined to be approximately 400 and this sample size satisfied the criteria for the statistical validity of the structural equation modeling (SEM) and other statistical techniques used in the study Kline [23]. Sampling was done in stages using educational institutions, organizations, social media, and the researcher's personal contacts. Individuals were invited to complete the questionnaire online at a designated

web site where explanations of the purpose of the questionnaire and instructions for its completion were available.

The questionnaires were created using the ServayCan web service and were published at popular virtual community web sites in Thailand (www.facebook.com, www.pantown.com). Only participants who went into these sites could see the online questionnaire. They were informed of purpose of the questionnaire and given an assurance of anonymity for the respondents. The questionnaires were collected with no missing answers because the ServayCan web service only allowed completed questionnaires to be submitted.

#### **An Overview of Previous Studies**

By noting that customers are aspects of behavior repurchase intention and he hypothesize a correspondence between customers behaviours and online purchasing patterns of individual behavior. In customers repurchase intention studies several researchers have considered customers experience and e-commerce system as determinants of repurchase intention [16, 44, 45, 46].

In a study of customers repurchase intention and behaviors, Fand [16] noted between levels of analysis. One possibility for relating dimensions of individual's satisfaction and individual's trust factors was measuring. In the study by Karami [44], only satisfaction, which was one of repurchase intention factors included in the study, was found to have a significant positive effect on the actual use of B2C e-commerce, Lin and Lekhawipat [25] study only loyalty on online repurchase

intention, which was one of repurchase intention factors included in the study too which was found to have a significant positive effect on the actual use of B2C e-commerce, and this was significant importance of the factors in the results of the earlier study of online repurchase intention adoption in B2C e-commerce Fand [16].

An alternative approach for examining the effects of customers repurchase intention is to focus attention on influences of customers' purchasing intention and environment of online shopping. This is achieved by measuring customer behavior traits Zhang [46] and previous studies have behavior to predict the use of e-commerce Pavlou and Fygenon [45]. The behaviors are linked at the intention and behavior stages, while perceptions and beliefs remain strictly behavior-specific. One behavior can thus influence another without violating. In addition, a certain goal-directed intention can trigger another intention if this serves as a means to accomplishing the goal Pavlou and Fygenon [45]. Oliver [31] explained consumer repurchase behavior, and argues that satisfaction is the main driving force behind consumers' repurchasing intentions.

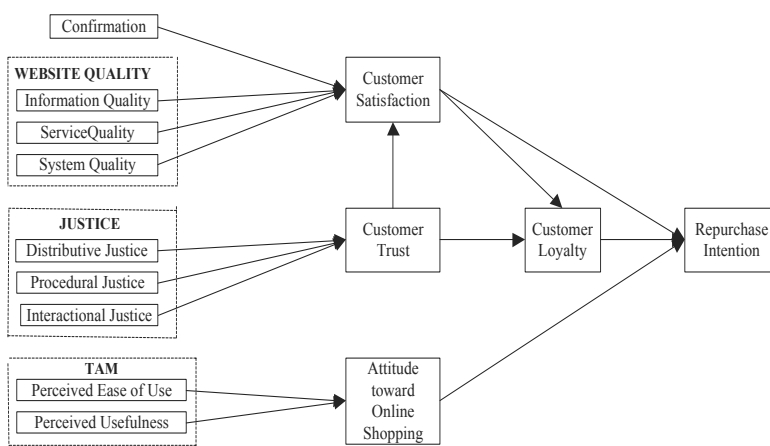
One strongly supported theoretical basis for customers repurchase intention is the Expectation-Confirmation Theory (ECT) taxonomy of five traits: Expectation, Perceived Performance, Confirmation, Satisfaction, and Repurchase Intention. It is important to note that all constructs in ECT except expectation are post-purchase variables, and their assessment is based on the consumer's

actual experiences with the Internet retailer [4, 32].

**Theoretical Model**

The construction of the theoretical model follows the approach proposed by Davis et al. (1992). Starting with the basic constructs of the Technology Acceptance Model (TAM) [10, 20, 21, 26] appropriate elements

are included from the extended Expectation-Confirmation Theory (ECT) [31] and the updated D&M IS success model [12] both of which are widely used to understand human behavior in marketing and information systems previous studies. The structure of the theoretical model is displayed in Figure 2.



**Figure 2:** Theoretical model.

The causal relationships among the elements in the model in Figure 2 are supported by previous studies: TAM constructs [16, 19, 20, 21, 26, 40, 42]; Confirmation [4, 31, 36]; Website Quality [3, 12, 28, 33, 34, 38]; Customer Satisfaction [2, 4, 12, 14, 25]; Justice [5, 8, 22, 35]; Customer Trust [13, 25, 41] and Customer Loyalty [15, 43].

All of the direct effects in the theoretical model are proposed to be positive and statistically significant at a level of 0.05 or less. The variables are latent variables measured by sets of indicators. Table 1 presents for each variable: an operational

definition; the labels used for the indicators; and a reference for the definition and source of an existing measuring instrument.

**Table 1:** Operational definitions for model variables

<b>Latent Variable</b>	<b>Operational Definition (Indicators)</b>	<b>Reference for Definition and Measuring Instrument</b>
Confirmation	Expectations for benefits of B2C website usage in terms of: overall experience; service level, and benefits. (CON1-4)	Bhattacharjee [4]
Service Quality	The extent of a belief that using a B2C website will provide service in terms of: convenience; good care; personal privacy; and responsiveness. (SQ1-4)	Molla and Licker [29]
System Quality	The extent of a belief that using a B2C website will provide system quality in terms of: protection; comfort; safe transactions; and satisfactory response times. (SYQ1-4)	DeLone and McLean [12]
Information Quality	The extent of a belief that using a B2C website will provide quality information in terms of: accuracy; timeliness; completeness; and relevance. (IQ1-4)	DeLone and McLean [12]
Procedural Justice	The extent of a belief that the e-vender has policies and procedures that are: fair; transparent; obvious; and compensatory. (PJ1-4)	Thibaut and Walker [39]
Distributive Justice	The extent of a belief that their investment will return a value characterized by: fairness; worthiness; necessity; and quality. (DJ1-4)	Catechism [7]
Interactional Justice	The extent of a belief that the e-vender will treat customers with: respect; friendliness; and politeness. (IJ1-3)	Bradley and Sparks [6]
Perceived Ease of Use	The extent of a belief that using a B2C website is free of effort in terms of being: flexible; easy to buy; easy to locate; and easy to learn. (PEOU1-4)	Davis et al. [10]
Perceived Usefulness	The extent of a belief that using a B2C website will improve shopping experience in terms of being more: comfortable; effective; convenient; and useful for purchasing. (PU1-4)	Davis et al. [10]
Attitude toward Online Shopping	The extent of a belief that the e-vender will deliver on usefulness and ease of use in terms of: transactions; flexibility; easy to search; and easy to use. (ATS1-4)	Ajzen [1]
Customer Trust	The extent of a belief that the e-vendor can be trusted and is reliable.(CT1-4)	Mayer [27]; Moorman [30]
Customer Loyalty	The extent of the view of the e-vendor in terms of: supporting; recommending to others; staying faithful; remaining a customer. (CL1-4)	Oliver [32]
Customer Satisfaction	A cognitive appraisal of B2C experience based on: overall experience; comparison with other vendors; product information; and website service.(CS1-4)	Oliver [31]
Repurchase Intention	The extent of intention to continue purchasing and B2C website use in terms of likelihood and commitment. (RI1-3)	Hellier et al. [18]

### **Data Preparation and Preliminary Analysis**

A sample of 401 completed questionnaires was obtained. There were no missing values and none of the measures of the model variables included an outlier value (i.e. a value three or more standard deviations from the mean). When a randomly selected 10 percent were checked for data entry errors none were detected. The construct validity of the latent model variable was assessed using Principal Component factor analysis and the equivalence reliability was assessed using Cronbach alpha coefficients. The results in Appendix Table A1 indicate that the final sets of indicators for the latent variables have very satisfactory construct validity and excellent equivalence reliability.

### **Personal Characteristics of Respondents**

Almost 65 percent of subjects were females; the average age for all subjects was 32 years with 36 percent in the age range 26–36 years; 46 percent worked in the position of officer in public organizations; 74 percent had a bachelor's degree and a further 26 percent had a master's degree; the average monthly salary was 18,500 baht with 44 percent of monthly salaries ranging from 10,000 to 20,000 baht and a further 22 percent had monthly salaries of 20,001 to 30,000 baht; on average the respondents were make less than one online purchase per month (56 percent) were engaged for an average of percent making 1–3 online purchases per month with 32 percent; 52 percent of the subjects spent less than 1,000 baht per month on online purchases. However, on average an individual spent

3,940 baht each month on online purchases and 96 percent spent up to 11,000 baht per month. Most online purchases (30 percent) took between 11–21 minutes to complete with an average time of 26 minutes. Most subjects (66 percent) patronized 2–4 online shopping sites and overall 68 percent judged their online shopping experience to be good with 8 percent describing their experience as excellent and only 2 percent describing it as bad or very bad.

### **Descriptive Statistics**

For the indicators for the model variables the magnitudes of skewness and kurtosis are within the acceptable limits of 3 and 7, respectively, required for the use of maximum likelihood estimation in SEM analyses [23]. T-tests were used to examine the difference between the mean value of each indicator and the value of 3 which represented a *neutral* opinion on the 5-point Likert measurement scales. The mean values for all model variables were significantly greater than 3 ( $p < 0.05$ ) which indicates that on average the subjects placed significant importance on the aspects represented by the model variables related to online repurchasing. Also, t-tests showed that there were no statistically significant differences due to Gender ( $p < 0.05$ ) for any of the model variables except for Confirmation, Distributive Justice, and Interactional Justice were on average compared to the females the males considered these as being more important although for both groups the mean values were significantly greater than the *neutral* value of 3.



Appendix Table A2 shows the correlations among the model variables and the variables used to describe the personal characteristics of the respondents. All of the model variables are statistically significantly positively correlated with each other ( $p < 0.05$ ). Among the personal characteristics, not surprisingly, Age, Education, and Income are significantly positively correlated with each other. There are significant positive correlations among the number of online purchases per month, the amount spent on these purchases, the time taken to complete a purchase, and the number of online shops patronized by the buyers. In particular, older subjects with higher incomes spend the most on online shopping each month.

Age, Income, and Education are not significantly correlated with any of the model variables but the number of online purchases each month, the number of online shops patronized by the participants, and the time taken to complete purchases are significantly positively correlated with all of the model variables. In particular, the amount spent each

month on purchases is significantly positively correlated with Conformation, Service Quality, Perceived Usefulness, and Customer Trust.

#### Model Analysis and Development

The theoretical model was analyzed using Amos software. The results for the direct effects are shown in Figure 3 using the following notation: **(a)** the unstandardized effects are shown followed by the symbol \*, \*\* or \*\*\* if the effect is statistically significant at a level of 0.05, 0.01, or 0.001, respectively, and NS if the effect is not statistically significant at a level of 0.05 or less; **(b)** in parentheses the standardized effect is shown with S, M, or L to indicate that the magnitude of the effect is small, medium, or large, respectively, where small corresponds to an effect of magnitude less than 0.1, medium is magnitude from 0.1 to less than 0.5, and large is a magnitude of 0.5 or more. These notations are used throughout subsequent analyses of effects [8].

Table 2 shows the values of the range of fit statistics for the theoretical model in Figure 3 as recommended by Kline [23].

**Table 2:** Fit statistics for the theoretical model

Model	Sample Size	Normed Chi-square (NC) = $\chi^2/df$	RMR	GFI	AGFI	NFI	IFI	CFI	RMSEA
Theoretical Model	401	2475.454/1274 = 1.943	.042	.817	.794	.906	.952	.952	.049
		R <sup>2</sup> : Repurchase Intention (0.775), Customer Loyalty (0.781), Customer Satisfaction (0.828), Customer Trust (0.770), and Attitude toward Online Shopping (0.881)							

**Note:** R<sup>2</sup> is the proportion of the variance of each endogenous variable that is explained by the variables affecting it.

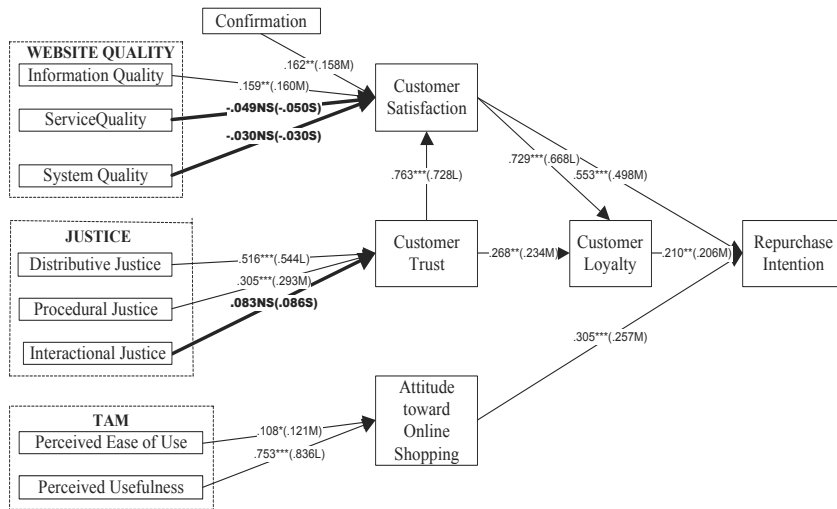


Figure 3: SEM analysis of the theoretical model.

From Table 2 it is seen that apart from GFI and AGFI the fit statistics are quite satisfactory but in Figure 3 there are three highlighted direct effects which are small and not statistically significant. Consequently, it was decided to investigate the removal of these three direct effects (Service Quality → Customer Satisfaction, System Quality → Customer Satisfaction, and Interactional Justice → Customer Trust) from the model. This was done by making these three effects

optional in the theoretical model and using the specification search facility in Amos to analyze the resulting hierarchy of  $2^3 = 8$  models. Following Kline [23] the final model among these eight models was selected as the one with the smallest value for the Normed Chi-square (NC) fit statistic. The final model showing the direct effects is in Figure 4 and the associated fit statistics are shown in Table 3.

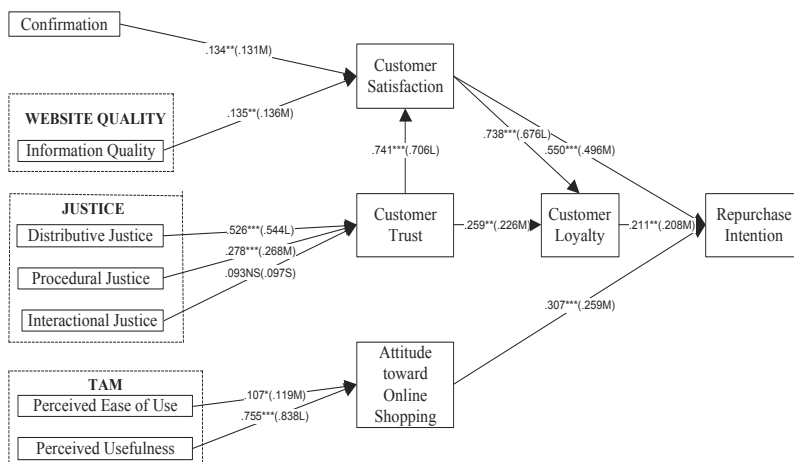


Figure 4: The final model.

**Table 3:** Fit statistics for the final model

Model	Sample Size	Normed Chi-square (NC) = $\chi^2/df$	RMR	GFI	AGFI	NFI	IFI	CFI	RMSEA
Final Model	401	2477.090/1276= 1.941	.046	.917	.901	.918	.957	.957	.050
$R^2$ : Repurchase Intention (0.774), Customer Loyalty (0.781), Customer Satisfaction (0.825), Customer Trust (0.763), and Attitude toward Online Shopping (0.882)									

**Note:**  $R^2$  is the proportion of the variance of each endogenous variable that is explained by the variables affecting it.

From Table 3 and Figure 4 it is seen that the final model has improved fit statistics, it is simpler than the theoretical model, and satisfactory proportions of the variance of the endogenous variables are explained. Although the direct effect of Interactional Justice on Customer Trust is small and not statistically significant at a level of 0.05 or less it is retained in the final model because if it is removed then the value of Normed Chi-square (NC) increases. All of the other direct effects are positive, medium or large, and statistically significant at a level of 0.05 or less.

## Results

In addition to addressing the four research questions set for the study the following discussion relates the findings to those in previous studies and identifies new findings.

### Respondents Profile

The respondents have very positive attitudes to all of the factors that influence their strong intentions to continue to purchase using B2C e-commerce. They believe that it is trustworthy, flexible, easy to learn and use, helps them to save time and money to purchase, and allows them to contact the vendor easily. There were no important differences between the views of males and

females and age, income, and education are not significantly correlated with any of the model variables. Those individuals with very favorable opinions about the factors that have positive effects on their intentions to repurchase online tend to often spend higher amounts on purchases from several B2C websites. In particular, and not surprisingly, those who spend considerable amounts of money on online purchases believe that: the benefits are very substantial; their shopping experience is very comfortable, effective, convenient, and useful; the service is excellent; and the e-vendors are very reliable and trustworthy

### Findings for Direct Effects

Table 4 summarizes the effects of each variable in the final model (Figure 4) taking account of indirect as well as direct effects.

**Table 4:** Direct and indirect effects in the final model

Variable		Intervening Variable				Dependent Variable
		CT	ATS	CL	Repurchase Intention	
Exogenous Variable	Confirmation (CON)	Medium, Only Direct	<i>Nil</i>	<i>Nil</i>	Small, Only Indirect	Small, Only Indirect
	Information Quality (IQ)	Medium, Only Direct	<i>Nil</i>	<i>Nil</i>	Small, Only Indirect	Small, Only Indirect
	Distributive Justice (DJ)	Medium, Only Indirect	Large, Only Direct	<i>Nil</i>	Medium, Only Indirect	Medium, Only Indirect
	Procedural Justice (PJ)	Medium, Only Indirect	Medium, Only Direct	<i>Nil</i>	Medium, Only Indirect	Medium, Only Indirect
	Interactional Justice (IJ)	Small, Only Indirect	Small, Only Direct	<i>Nil</i>	Small, Only Indirect	Small, Only Indirect
	Perceived Ease of Use (PEOU)	<i>Nil</i>	<i>Nil</i>	Medium, Only Direct	<i>Nil</i>	Small, Only Indirect
	Perceived Usefulness (PU)	<i>Nil</i>	<i>Nil</i>	Large, Only Direct	<i>Nil</i>	Medium, Only Indirect
Intervening Variable	Customer Satisfaction (CS)	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	Large, Only Direct	Large, Mainly Direct
	Customer Trust (CT)	Large, Only Direct	<i>Nil</i>	<i>Nil</i>	Large, Mainly Indirect	Large, Only Indirect
	Attitude toward Online Shopping (ATS)	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	Medium, Only Direct
	Customer Loyalty (CL)	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>	Medium, Only Direct

The shaded cells in Table 4 describe effects in the final model which are only direct and correspond to those shown in Figure 4. It is seen that all of the direct causal effects in the theoretical model (Figure 2) which were derived from previous studies are strongly supported by the findings with the exceptions of the three small statistically significant direct

effects of: Service Quality and System Quality on Customer Satisfaction proposed by DeLone and McLean [12] and others; and Interactional Justice on Customer Trust proposed by Cohen-Charash and Spector [9] and others. It is apparent among these experienced online shoppers that, although system and service quality and being treated with respect by

e-vendors are very important, efforts made to improve these characteristics will not have any important effect on their current high levels of satisfaction and trust. These three small statistically significant direct effects may be considered as new findings in relation to experienced online shoppers but it is possible that they may be significant for individuals during the initial stages of their adoption of B2C e-commerce.

#### **New Findings Involving Indirect Effects**

The un-shaded cells in Table 4 (apart from those labeled *Nil*) identify effects in the final model which are due to only indirect effects or the total of direct and indirect effects. These findings are not reported in the results of previous studies and they are considered to be important new findings from this study.

Considering the influences on Repurchase Intention for experienced online shoppers in Table 4:

The total effects of Confirmation, Information Quality, Instructional Justice, and Perceived Ease of Use are only small and further improvements in these aspects will not significantly affect Repurchase Intention among these individuals. However, these findings may not apply to individuals in the early stages of the adoption of B2C websites;

Distributive Justice, Procedural Justice, and Perceived Usefulness have medium important indirect effects on Repurchase Intention. Thus feelings of fairness, transparency, and convenience are important for individuals to continue to purchase at B2C websites. These effects almost certainly apply to B2C users

regardless of their length of experience with online shopping;

Efforts in increasing Customer Trust and Customer Satisfaction will have important large positive impacts on Repurchase Intention. These important effects almost certainly apply to B2C users regardless of their length of experience with online shopping.

Confirmation, Information Quality, and Instructional Justice have only small indirect effects on Customer Loyalty and the same is true for the effect of Instructional Justice on Customer Satisfaction. However, Distributive Justice (valuable and worthy investment) and Procedural Justice (fair and transparent transactions) have important medium indirect effects on Customer Satisfaction and Customer Loyalty. Furthermore, Customer Trust has a large important mainly indirect effect on Customer Loyalty through the important mediation role played in this relationship by Customer Satisfaction. For these experienced online shoppers trust and satisfaction play important roles in developing their high levels of customer loyalty.

#### **Practical Implications of the Findings**

Based on the effects in Table 4 it is possible to construct a hierarchy of practical objectives and associated actions with decreasing order of effect in achieving the stated objective. The hierarchy is shown in Table 5 where each action is associated with a variable in the final model (Figure 4) and actions involving small effects have not been included.

**Table 5:** Hierarchy of practical objectives and actions

Objective	Action	Variable
<b>Primary Objective:</b> To Increase Repurchase Intention	1. Increase customer satisfaction with online shopping (See <b>secondary objective 1</b> ).	Customer Satisfaction
	2. Increase customer trust in online shopping (See <b>secondary objective 2</b> ).	Customer Trust
	3. Increase a customer's belief that their online shopping will be characterized by: fairness; worthiness; necessity; and quality.	Distributive Justice
	4. Increase a customer's belief that online shopping will be useful and ease to use in terms of: transactions; flexibility; and searching (See <b>secondary objective 3</b> ).	Attitude toward Online Shopping
	5. Increase a customer's belief that using a B2C website will improve their shopping experience in terms of being more: comfortable; effective; convenient; and useful for purchasing.	Perceived Usefulness
	6. Increase the customer's positive view of the vendor in terms of: supporting; recommending to others; staying faithful; remaining a customer. (See <b>secondary objective 4</b> )	Customer Loyalty
	7. Increase a customer's belief that the vendor has policies and procedures that are: fair; transparent; obvious; and compensatory.	Procedural Justice
<b>Secondary Objective 1:</b> To Increase Customer Satisfaction	1. Increase trust in online shopping (See <b>secondary objective 2</b> ).	Customer Trust
	2. Increase a customer's belief that their online shopping will be characterized by: fairness; worthiness; necessity; and quality.	Distributive Justice
	3. Increase a customer's belief that the vendor has policies and procedures that are: fair; transparent; obvious; and compensatory.	Procedural Justice
	4. Increase a customer's belief that using a B2C website will provide them with quality information in terms of: accuracy; timeliness; completeness; and relevance.	Information Quality
	5. Increase a customer's judgment about benefits of B2C website usage in terms of: overall experience; service level, and benefits.	Confirmation
<b>Secondary Objective 2:</b> To Increase Customer Trust	1. Increase a customer's belief that their online shopping will be characterized by: fairness; worthiness; necessity; and quality.	Distributive Justice
	2. Increase a customer's belief that the vendor has policies and procedures that are: fair; transparent; obvious; and compensatory.	Procedural Justice

**Table 5:** (continued)

Objective	Action	Variable
<b>Secondary Objective 3:</b> To Improve Attitude toward Online Shopping	1. Increase a customer's belief that using a B2C website will improve their shopping experience in terms of being more: comfortable; effective; convenient; and useful for purchasing.	Perceived Usefulness
	2. Increase a customer's belief that using a B2C website is free of effort in terms of being: flexible; easy to buy; easy to locate; and easy to learn.	Perceived Ease of Use
<b>Secondary Objective 4:</b> To Increase Customer Loyalty	1. Increase a customer's belief that using a B2C website will improve their shopping experience in terms of being more: comfortable; effective; convenient; and useful for purchasing.	Perceived Usefulness
	2. Increase a customer's belief that using a B2C website is free of effort in terms of being: flexible; easy to buy; easy to locate; and easy to learn.	Perceived Ease of Use
	3. Increase customer satisfaction with online shopping (See <b>secondary objective 1</b> ).	Customer Satisfaction
	4. Increase a customer's belief that their online shopping will be characterized by: fairness; worthiness; necessity; and quality.	Distributive Justice
	5. Increase a customer's belief that the vendor has policies and procedures that are: fair; transparent; obvious; and compensatory.	Procedural Justice

**Conclusion and Discussion**

As presented in the discussion of the findings in the previous section a final model (Figure 4) is developed which provides a theoretical explanation for what causes individuals with B2C e-commerce experience to be motivated to continue to purchase online. Most of the direct effects in the model are in accordance with findings in many previous studies. However, new results showed that, although system quality, service quality, and the friendliness and politeness of the e-vendor (Interactional Justice) were important to these experienced online shoppers, improving these aspects would not have any significant direct effect on customer satisfaction and trust.

When indirect effects are taken into account new findings for impacts on Repurchase Intention resulting from improvements in: Confirmation, Information Quality, Instructional Justice, and Perceived Ease of Use are positive but only small; Distributive Justice, Procedural Justice, and Perceived Usefulness are positive and medium; and Customer Trust and Customer Satisfaction are positive and large. Also, Confirmation, Information Quality, and Instructional Justice have only small positive effects on Customer Loyalty and the same is true for the effect of Instructional Justice on Customer Satisfaction. However, Distributive Justice and Procedural Justice have medium positive effects on

Customer Satisfaction and Customer Loyalty. Furthermore, Customer Trust has a large positive effect on Customer Loyalty through the important mediation role played in this relationship by Customer Satisfaction.

From a practical perspective the examination of both direct and indirect effects in Table 4 enables a hierarchy of objectives and associated actions to be formulated in Table 5. This interpretation of the practical implications of the final model (Figure 4) relates specifically to online shoppers who have experience with B2C websites and it is expected to be of interest to those who have responsibilities related to the development and operation of B2C websites.

It is claimed that the measurement reliability and validity and the internal validity of the research design are satisfactory for this cross-sectional field study. However, the external validity of the findings and especially the new findings need to be tested by repeating the study with samples of online shoppers with B2C experience and this is strongly recommended. Also, future research could be carried out in C2C and/or B2B environments using the same model as used in this research enabling a comparison of results. Further research may include other factors (e.g. habit, equipment, and media) that affect repurchase intention.

## References

- [1] Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*. 50(2): 179-211.
- [2] Avramakis, E. (2011). *Relationship Management in Swiss Finance Services: An Investigation into Relationship and Bonding Values of Highly-involved and Confident Customers*, A Doctor of Business of Administration Thesis. Southern Cross University: Australia.
- [3] Bauer, H. H., Falk, T. & Hammerschmidt, M. (2006). E-TransQual: a transaction process-based approach for capturing service quality in online shopping. *Journal of Business Research*. 59(7): 866-75.
- [4] Bhattacharjee, A. (2001). An empirical analysis of the antecedents of electronic commerce service continuance. *Decision Support Systems*. 32(2): 201-214.
- [5] Bies, R.J.; and Moag, J.S. (1986). Interactional justice: communication criteria of fairness in Lewicki, R., Bazerman, M. and Sheppard, B. (Eds). *Research on Negotiation in Organizations*. pp. 43-55. JAI Press, Greenwich: CT
- [6] Bradley, G. L.; and Sparks, B. A. (2002). Service Locus of Control: Its conceptualization and measurement. *Journal of Service Research*. 44: 312-324.
- [7] Catechism. (2000). *Catechism of the Catholic Church: Revised in Accordance With the Official Latin Text Promulgated by Pope John Paul II*. 2nd ed. Usccb Pub. The Vatican: Liberia Editrice Vaticana.



- [8] Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. 2nd ed. Academic Press: New York.
- [9] Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*. 86: 278 –321.
- [10] Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. 13(3): 319-339
- [11] Davis, F.D., Bagozzi, R.P., and Warshaw, P.R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology*. 22: 1111-1132.
- [12] Delone, W.; and Mclean, E. (2003). The Delone and Mclean model of information systems success: A ten-year update. *Journal of Management Information Systems*. 19(4): 9-30.
- [13] Deng, Z., Lu, Y., Wei, K, K.; & Zhang, J. (2010). Understanding Customers Satisfaction and Loyalty: An empirical study of mobile Instant messages in China. *International Journal of Information Management*. 30: 289-300.
- [14] Devaraj, S., Fan, M., & Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: validating E-commerce metrics. *Information Systems Research*. 13(3): 316-333.
- [15] Eisingerich, Andreas B. Bell, Simon J. (2007). Maintaining customer relationships in high credence services. *Journal of Services Marketing*. 21(4): 253-262.
- [16] Fand, Chiu; and Wang. (2011). Understanding customers' satisfaction and repurchase intentions an integration on IS success model, trust and justice. *Internet research*. 21(4): 479-503.
- [17] George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference, 11.0 update*. 4th ed. Boston: Allyn & Bacon.
- [18] Hellier, P., Geursen, G., Carr, R., & Rickard, J. (2003). Customer repurchase intention: A general structural equation model. *European Journal of Marketing*. 37(11/12): 1762-1800.
- [19] Homsud; and Chaveesak. (2014). An integrated model of customer repurchase intention in B2C e-commerce. *2014 6th International conference on information technology and electrical engineering (ICTEE)*. Yoguakarta: Indonesia.
- [20] Hong, S. J., Thong, J., & Tam, K. Y. (2006). Understanding continued information technology usage behavior: a comparison of three models in the context of mobile internet. *Decision Support Systems*. 42: 1819-1834.
- [21] Hsu, P.F., Kraemer, K.L., & Dunkle, D. (2006). Determinants of E-business use in U.S. firms, *International Journal of Electronic Commerce*. 10(4): 9-45.

- [22] Hubbell, A.P.; and Chory-Assad, R.M. (2005). Motivating factors: perceptions of justice and their relationship with managerial and organizational trust. *Communication Studies*. 56(1): 47-70.
- [23] Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*. Guilford Press: London.
- [24] Koufaris, M. (2002). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*. 13(2): 205-23.
- [25] Lin, H. H., & Wang, Y. S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Information & management*. 43: 271-282.
- [26] Lu, Y., Zhai, C. X., & Sundaresan, N. (2009). Rated aspect summarization of short comments. In *WWW'09 - Proceedings of the 18th International World Wide Web Conference*. pp. 131-140
- [27] Mayer, R.C., Davis, J.H.; and Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of Management Review*. 20(3): 709-34.
- [28] McKinney, V., & Yoon, K. (2002). The measurement of Web-customer satisfaction: An expectation and disconfirmation approach. *Information Systems Research*. 13(3): 296-315.
- [29] Molla, A., & Licker, S.P. (2001). E-commerce systems success: an attempt to extend and respecify the Delone and Maclean model of IS success. *Journal of Electronic Commerce Research*. 2(4): 35-49.
- [30] Moorman, C., R. Deshpande; and G. Zaltman. (1993). Factors Affecting Trust in Market Research Relationships. *Journal of Marketing*. 57(1): 81-101.
- [31] Oliver, R. L. (1980). A cognitive model for the antecedents and consequences of satisfaction. *Journal of Marketing Research*. 17(4): 460-469.
- [32] Oliver, R. L. (1999). Whence consumer loyalty?. *Journal of Marketing*. 63(4): 33-44.
- [33] Parasuraman, A., Valarie A. Zeithaml, Arvind Malhotra. (2005). *E-S-QUAL: A Multiple Item Scale for Assessing Electronic Service Quality*. *Journal of Service Research*. 7(3): 213-233.
- [34] Patterson, P. G., Johnson, L. W., & Spreng, R. A. (1997). Modeling the determinants of customer satisfaction for business-to-business professional service. *Journal of the Academy of Marketing Science*. 25: 4-17.
- [35] Pillai, R., Williams, E. S., & Tan, J. J. (2001). Are the scales tipped in favor of procedural or distributive justice? An investigation of the US, India, Germany, and Hong Kong (China). *International Journal of Conflict Management*. 12(4): 312-332.
- [36] Spreng R. A., MacKenzie, S. B., & Olshavsky, R. W. (1996). A re-examination of the determinants of consumer satisfaction. *Journal of Marketing*. 60(3): 15-32.

- [37] Straub, D., Boudreau, M.C.; and Gefen, D. (2004). Validation guidelines for IS positivist research. *The Communications of the Association for Information Systems*. 13(1): 63.
- [38] Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: an initial examination. *Journal of Retailing*. 76(3): 309-322.
- [39] Thibaut, J.W.; and Walker, L. (1975). *Procedural Justice: A Psychological Analysis*. Lawrence Erlbaum: Hillsdale, NJ.
- [40] Wang, Y. S. (2007). Assessing E-commerce systems success: a re-specification and validation of the DeLone and McLean model of IS success. *Information Systems Journal*. 18: pp. 529-557.
- [41] Weisberg, J., Te'eni, D.; and Arman, L. (2011). Past purchase and intention to purchase in E-commerce The mediation of social presence and trust. *Internet Research*. 21(1): 82-96.
- [42] Ya-Wen Yu; et al. (2014). Factor influencing online repurchase intention: The case of clothing customers in Thailand, *2014 Proceeding of PICMET'14: Infrastructure and Service Integration*. pp. 658-699.
- [43] Yee, R. Yeung, A., and Cheng, T. (2010). An empirical study of employee loyalty, service quality and firm performance in the service industry. *International Journal of Production Economics*. 124(1): 109.
- [44] Karami; et al. (2012). "The effects of online shopping factors on customers repurchase intention in Malaysia". *Current Trends in Technology and Science*. 2(2): 211-215.
- [45] Pavlou, PA; & Fygenson, M. (2006). "Understanding and predicting electronic commerce adoption: An extension of the Theory of Planned Behavior". *MIS Quarterly*. 30(1): 123-142.
- [46] Zhang, Y, Fang, Y, Wei, K-K, Ramsey, E, McCole, P; & Chen, H. (2011). "Repurchase intention in B2C e-commerce: a relationship quality perspective". *Information & Management*. 48: 192-200.