



Journal of Internet Banking and Commerce

An open access Internet journal (<http://www.arraydev.com/commerce/jibc/>)

*Journal of Internet Banking and Commerce, April 2012, vol. 17, no.1
(<http://www.arraydev.com/commerce/jibc/>)*

A STUDY OF THE RELATIONSHIP BETWEEN THE VALUE PERCEPTION AND LOYALTY INTENTION TOWARD AN E-RETAILER WEBSITE

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Abstract

The Internet has become an important channel for retailers to effectively reach their target customers or expand into new markets. Due to the low switching costs for customers and few entry barriers for competitors, competition in the online environment has become fierce. Value creation for consumers is important in the success of retaining customers. The Internet provides a new way for retailers to create value for a wider range of customers. Understanding how to offer value through the interaction between website attributes and visitors can help online retailers enhance customer loyalty intention to the site. This study examined the effects of three components of perceived value on customer loyalty intention to an e-retailer's website. Perceived value components--utilitarian value, trust, and hedonic value--were hypothesized to have direct and positive effects on customer loyalty intention toward an e-retailer's website. Data were collected from 243 students

through five different colleges and 418 office workers in the urban cities of Northern and Central Taiwan by using a paper-pencil survey. A Structural Equation Modeling technique was employed to test the research model. The result shows that trust and utilitarian value both had significant effects on e-loyalty intention; however, hedonic value did not appear to have a positive effect on e-loyalty.

Keywords: utilitarian value, hedonic value, trust, e-loyalty

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INTRODUCTION

Michael Porter has said that deploying the Internet technology to conduct business is the market trend; companies have no choice if they want to stay competitive (Chaffey, Ellis-Chadwick, Johnston, & Mayer, 2006). According to a survey conducted by ACNielsen (2008), more than over 85 percent of the world's online population has used the Internet to make a purchase, up 40 percent from two years ago, and more than half of Internet users are regular online shoppers, making online purchases at least once a month. Forrester Research just released a research that reported the global online population would grow 43 percent by the year 2014, when somewhere about 2.32 billion people around the world will be regular Internet users. This represents an enormous rate of growth, particularly when you consider that the global online population rose from just under 1 billion to 1.6 billion between 2005 and 2009 (Ecommercejunkie, 2010).

Most global online retailers predict that online buyers will become more knowledgeable in searching for pre-purchase information and finding websites that provide valuable offerings, such as free shipping and deep discounts. Due to low barriers to enter the online business world, more traditional retail firms have ventured into the e-retail business, so the competition in business-to-consumer (B2C) commerce has become more intensive than ever.

Under the pressure of fierce competitions, to successfully conduct business online, Clarke III and Flaherty (2005) suggested that marketing managers should attend to four crucial aspects: (a) knowing and recognizing your customers' needs, (b) creating obvious value for them, (c) increasing customer satisfaction and loyalty intention, and (d) building relationship with them. In particular, customers now have more bargaining power, lower switching costs in the online context, and a large number of choices available; thus, understanding what leads to online consumers' loyalty merits research attention (Barsh, Crawford, & Grosso, 2000).

Many leading companies now acknowledge that the best approach to increasing customer loyalty for achieving sustainable financial and market success is the creation of outstanding consumer value (Clarke III & Flaherty, 2005). Furthermore, attracting new visitors and retaining customers to online stores are considerably more expensive compared to attracting and retaining them to brick-and-mortar stores. For online retailers, the high cost of acquiring new customers can make many customer relationships unprofitable, and without customer loyalty, even well-known retailers will fail doing business online (Clarke III & Flaherty, 2005).

With the rapid growth and proliferation of e-commerce, it is quite perplexing that so little is known about the factors that influence a customer's loyalty intention toward an

individual e-retailer's website. As most online stores conduct business via a website, without this knowledge, they will have a difficult time attracting and keeping their customers (Oppen, Odekerken-Schroder, & Wetzels, 2005).

Perceived value (utilitarian value, trust, and hedonic value) has recently gained much attention from marketers and researchers because of the important role it plays in predicting purchase intention and achieving the sustainable competitive advantage (Clarke III & Flaherty, 2005). Although both utilitarian value (e.g., product value) and hedonic value (e.g., shopping value) influence shopping behavior in a physical store, (Childers, Carr, Peck, & Carson, 2001), the relative importance of utilitarian value versus hedonic value in an online context is still under debate (Bridges & Florsheim, 2008).

Online marketing literature still has not reached consensus about the impact of utilitarian value and hedonic value. Isolated cases such as Lee and Overby (2004) empirically tested that both utilitarian and hedonic values did exist in online shopping and positively affected customer satisfaction, leading to heightened loyalty. In their later research (Overby & Lee, 2006), they found that although Internet shopping did invoke both values, the effect of utilitarian value was greater than hedonic value on the influence of online shopping behavior.

A noticeable problem is that hedonic value in the online context has not been widely researched (Bauer, Falk, & Hammerschmidt, 2006), which makes it difficult to understand the hedonic effect on the Internet consumer behavior. Although some studies have examined factors that influence perceived value and loyalty of shopping online (Anderson & Srinivasan, 2003; Wolfenbarger & Gilly, 2002), no sufficient evidence elucidates the relationship exists in different online buyers worldwide, in particular for Asian online shoppers.

The study aims to examine how Taiwan's online buyers' value perception influences their loyalty intention toward an e-retailer website. The result helps retailers recognize different online shopping behaviors for formulating effective Internet marketing strategy.

REVIEW OF THE LITERATURE

The goal in this section is to review a selection of studies that are relevant to the present research and examine how consumer value perception impacts on loyalty intention toward an e-retailer website.

An Overview of Internet Users and E-Commerce in Taiwan

According to ACNielsen (2006), at least 90 % of respondents in Taiwan claimed they had ever made a purchase online, and at least six in ten of whom had online buying experience. This rate surpassed all other Asian Pacific countries because 82.6 % of Taiwan households had computers and 77.5 % of them were connected to the Internet (RDEC, 2008). Recently, the number of Internet users in Taiwan reached a record high in 2010, surpassing 16.2 million people (the total population in Taiwan is about 23 million), according to a survey by the Taiwan Network Information Center (TNIC, 2011). Internet shopping is becoming a very popular activity among Internet users in Taiwan. The growth of Internet commerce is evidenced not only by the popularity of websites but also by the increase in revenue and profitability of some of its key operators. The rapid growth of online buyer population in Taiwan provides a bright prospect for e-marketers and academic study.

Perceived Value

Researchers asserted that this broader definition of perceived customer value provides conceptual richness (Broekhuizen, 2006). Summarizing the previous definitions, perceived customer value can be defined as a consumer's perception of the net benefits gained in exchange for the costs incurred in obtaining the desired benefits. However, the term *perceived value* is often used interchangeably with other value concepts in consumer and marketing research, such as consumer value, and consumption value.

Despite the varying terms and definitions on perceived value, there are commonalities between them: (a) perceived value is linked through the use to some product, service or object, (b) perceived value is something subjectively perceived by consumers rather than objectively determined, and (c) perceived value typically involves a tradeoff between what the consumer receives and gives to acquire and use a product or service (Woodruff 1997).

However, different consumers have different value perception of online shopping. Various elements of website attributes offer different values to online buyers, some delivering more hedonic value and others offering more utilitarian value (Senecal et al., 2002). To attract more visitors, many firms attempt to use the concept of a value proposition to build up the website attributes and expect these attributes to offer the best value to attract and retain diverse customers. Casalo, Flavian, and Guinaliu (2008) contended that customer perceived value is the pivot in relationship marketing and customer loyalty; therefore, the role of value in consumer loyalty has still received significant attention.

Recent researchers argue that perceived value is more complex and difficult to measure. Apart from functional (utilitarian) value such as price and product quality, other types of consumption (experiential) value like shopping enjoyment should be considered by scholars and managers (Lee & Overby, 2004). Although a number of value types have been identified in the literature (e.g., use value, intrinsic value, acquisition value, or transaction value), utilitarian value and hedonic value appear to be two universal value types most appropriate for describing consumer shopping behavior (Overby & Lee, 2006).

Utilitarian value

Utilitarian value is defined as an overall measurement of functional benefits and sacrifices (Overby & Lee, 2006). Utilitarian value involves more cognitive aspects of attitude, such as value for the money (Chen, 2004) and judgments of convenience and time savings (Teo, 2001). For instance, consumers may purchase online because of the convenience of locating and comparing merchants and evaluating price/quality ratios (Grewal, Monroe, & Krishnan, 1998; Mathwick, Malhota, & Rigdon 2001). In addition, price saving is related to the economic value dimension, and service excellence is relevant to the dimension that involves quality judgment for services offered during and after the online shopping (Mathwick et al., 2001).

Furthermore, time saving is another important shopping value for time- pressured consumers. Recent studies have found that time conservation is one of the primary motivations inspiring Internet shopping (Seiders, Berry, & Gresham, 2000; Szymanski & Hise, 2000). Consumers save their time, energy, and transportation costs when they shop online because they do not have to leave their homes. Online shopping makes it easy to search merchants, find product information and procure products, thus saving time resources for consumers (Mathwick et al., 2001). Besides, ample evidence

supports the positive effect of merchandise quality and the negative impact of the price on consumer's value perception of a product or brand (Grewal, et al., 1998). In sum, utilitarian value can be perceived by various modes from price saving, a quality product or service, time savings, convenience, and an assortment of merchandise selection.

Hedonic value

Hedonic value is defined as an overall judgment of experiential benefits and sacrifices, such as entertainment and escapism (Overby & Lee, 2006) Hedonic value reflects worth or fun found in the shopping experience itself, while utilitarian value reflects task-related worth. Hedonic value can be obtained from the entertainment, the visual appeal, and the interactivity involved with online shopping. Similar to the role of atmospherics in offline shopping environment, an appropriate use of colors, music, and other sensory features of the website might be able to enrich consumers' shopping experience (Clark III & Flaherty, 2005). In other words, hedonic value is relevant to acquiring affective and social stimulation, which enhances consumers' total Internet shopping experiences (Hoffman & Novak 1996).

Consumers' shopping motivations may be for the enjoyment of the experience rather than simply for task completion (Childers et. al, 2001). Like offline shopping, one expects online buyers also to shop for entertainment purposes and for out-of-routine experiences that absorb the visitors and let them "get away from it all" (Kim, 2002;

Mathwick et al., 2001). Recently, as e-buyers become more experienced, they increasingly seek hedonic value online. More recent researchers have supported the hedonic value of online shopping and addressed that functional value no longer exclusively drive online buying (Childer et al., 2001; To, Liao, & Lin, 2007).

Although the hedonic value has been studied by many researchers in the in-store shopping literature, (Babin & Attaway, 2000) it has only begun to be recognized as an important element of online shopping a few years ago (Childers et al., 2001). Van Riel, Liljander, and Jurriens (2001) found that affective reactions are crucial for the evaluation of e-retailer service and that fun and enjoyment, which characterize a flow experience, are major determinants of Internet usage behavior. Babin and Attaway (2000) also supported that positive affect associated with a website is related to both hedonic and utilitarian shopping value, impacting online buying behavior.

Although these two types of value have been researched in a number of studies related to in-store shopping, they have rarely been examined simultaneously in an online context. Given that Internet shopping has been compared to in-store shopping, any study of the value's impact on loyalty intention in an Internet shopping context should therefore incorporate both types of value (Jones, Reynolds, & Arnold, 2006). Along with these two values, another important perceived value in an online context proposed by previous studies is trust.

Trust

Trust involves the consumers' beliefs relating to products, brand, services, or salespeople, and the establishment where the products or services are bought and sold (Belanger, Hiller, & Smith, 2002). Due to the significant influence on the achievement of a long-lasting and profitable relationship, trust has received considerable attention in the marketing literature for years (Sirdeshmukh, Singh, & Sabol, 2002). The development of trust in the Internet environment is particularly important for online businesses, because it may reinforce the buyer's trust in and

loyalty toward the e-transaction.

E-Loyalty

Oliver (1999) defined loyalty as a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior sometimes. Parasuraman, Zeithaml, and Malhotra (2005) operationalized e-loyalty as the attitudinal and behavioral responses customers have towards online retailers. Loyalty has a long history of being a vital element of operating successful businesses. According to Gefen (2002), a five percent increase in customer loyalty can produce a 30% to 85% increase in company's profitability and it costs five to ten times more to get a new customer than it does to retain an existing one. Therefore, the notion of loyalty has become an important construct within the e-business frame.

Determinants of E-loyalty on Prior Studies

Oliver (1999) postulated four loyalty levels. In the first level, consumers will have cognitive loyalty based on beliefs that a brand of a product or store is preferable to others.

In the second level, consumers have affective loyalty that reflects a favorable attitude based on satisfied usage. In the third level, consumers may form a conative loyalty that constitutes the development of behavioral intention characterized by a deeper level of commitment (Hennig-Thurau, Gwinner, & Gremier, 2002).

In the final level, consumers may have behavior loyalty which converts intention to action, accompanied by a willingness to overcome impediments to such action. In addition, Chaudhuri and Holbrook (2001) proposed that behavioral loyalty consists of repeated purchases of the brand, whereas attitudinal loyalty includes a degree of dispositional commitment in terms of some unique value associated with the brand.

A synthesis of past literature review found three main streams of loyalty research including behavioral loyalty, attitudinal loyalty, and composite loyalty (Bennett & Rundle-Thiele, 2002; Chaudhuri & Holbrook, 2001). Most contemporary researchers appear to support the frameworks of composite loyalty that incorporates behavioral and attitudinal measures (Otim & Grover, 2006). In other words, customer loyalty is considered a bi-dimensional construct, including both attitudinal commitment and behavioral re-purchase intention. Hence, the consumers' willingness to recommend the service demonstrates their intention to continue a relationship with the store. Consequently, positive word-of-mouth and repurchase intention are two important expressions of composite loyalty (Bei & Chiao, 2001; McDougall & Levesque, 2000; Yoon & Uysal, 2005).

Although past studies have provided a solid literature base for the development of the research model, there are some weaknesses shown in the literature. The role of hedonic value in the evaluation of total perceived value was overlooked by most research. In fact, consumers shop over the Internet not only for finding value in terms of quality, price, and convenience, but also for fun. Thus, this study argues that not considering hedonic aspect of online shopping is a major omission. These weaknesses in past studies have many important implications for the current study. Based on the previous literature review, this study considers perceived value as a critical antecedent to predict the overall customer loyalty intention to a retailer site. This study attempts to examine consumer value perception and needs from their past

online purchase experience instead of their future purchase intention.

Finally, in line with Mathwick, Malhotra and Rigdon (2001), this study reasons that not only utilitarian aspects need to be included in the research of perceived value, but also the hedonic aspects are recognized as being at least equally important in nowadays shopping value perception in the online context (Arnold & Reynolds, 2003). Hence, to examine the relationship between judgments of Internet shopping value and consumer attitudes toward a retailer website, the global concept of value and its related dimensions must be taken into account. To truly comprehend how consumers perceive value of an e-retailer's website attributes, the perceived value was broken into three components: the utilitarian value, trust toward an e-retailer's website, and the hedonic value. These factors incorporate the benefits and costs associated with the usage of a retailer website and collectively contribute to consumers' overall value perception of an e-retailer's website.

Three value constructs that were included in the research model as perceived value components and were subjected to an empirical test. Finally, the relationship among three dimensions of perceived value and loyalty intention were fully examined. The next section elucidates the research methodology and a detailed description of each step of the research design and the data analysis method applied in the study.

METHODOLOGY

Research Design

The causal design was developed to explain the effect of perceived value upon loyalty intention of online buyers in Taiwan. The research model was empirically tested by using the technique of structural equation modeling (SEM) to fulfill the objective of the study and provide answers to the research problems. Hence, the research hypotheses were developed as follows:

- H₁ Utilitarian value will positively influence loyalty intention to an e-retailer's website.
- H₂ Trust will positively influence loyalty intention to an e-retailer's website.
- H₃ Hedonic value will positively influence loyalty intention to an e-retailer's website.

Definition of terms

Key terms in the study are defined below to assist readers in a clear understanding of the study. *E-loyalty* is a favorable attitude toward a retailer website that results in repeat visiting behavior and positive word-of-mouth. *Utilitarian value* is an overall assessment or judgment of functional benefits and sacrifices, such as time and price savings for making purchase. *Trust* is the willingness to rely on a retailer website in which one has confidence. *Hedonic value* is an overall assessment or judgment of experiential-oriented benefits and sacrifices, such as entertainment, sociality, and escapism.

Population

According to Chen's (2003) survey and Market Intelligence Center's (2007) report, students (32.8%) and office workers (67.2%) represented two major groups of Internet users in Taiwan. Thus, the population was limited to students and office workers from a variety of fields of studies and professions in the Northern and Central of Taiwan.

Scale development

The scale development procedure involved the development of survey instruments containing measures of perceived value and loyalty derived largely from existing

measures. Most scales used in this study were adapting what was done in previous research studies (see Table 6). No existing scales could be applied or modified; new scale items were created and validated for the current research. Three components of perceived value were measured: utilitarian value, trust value, and hedonic value. In this study, previous value scales and other published references for the measurement items (Grewal et al., 2003; Hoffman & Novak, 1996; Overby & Lee, 2006; Teo, 2001) were adapted for the evaluation of utilitarian value and hedonic value of an e-retailer's website attributes (Overby & Lee, 2006). "Trust toward a retailer website" was modified by the scale that was developed by Chaudhuri and Holbrook (2001).

Moreover, several past studies have conceptualized the customer loyalty construct (Oliver, 1999; Parasuraman and Grewal, 2000; Reichheld and Scheffer, 2000; Zeithaml et al., 1996). The scale for the loyalty measurement has been developed from a variety of perspectives (Cronin et al., 2000; Oliver, 1999; Zeithaml et al., 1996). Being consistent with previous research, this study measured loyalty towards the website attributes by adopting a composite construct that has been widely used by researchers (Chaudhuri & Holbrook, 2001; Fornell et al., 1996; Mathwick et al., 2001). Five-point Likert scales were employed in the study to test the construct.

Although Internet accessibility questionnaire seems to provide a relatively low cost as a data collection, the researcher has little control over who will access the website and fill out the questionnaire. In addition, most researchers have confirmed that a paper self-administered questionnaire is a more reliable approach to data collection (Cooper & Schindler, 2006). Thus, this study used a self-administered paper questionnaire approach to collect data from two different strata and the total time to finish the survey questions is about 15 minutes. Respondents had to express their post-purchase evaluations of the online retailer where they bought products or services.

Data Collection Methods

College students and office workers who had the online purchase experience in the past twelve months were eligible for participating in this survey. All data were collected from students and office workers within four weeks. All questionnaires were completed and collected by two schools' instructors or professors within four weeks. In terms of the office worker sample, respondents were recruited using the personal intercept interview method during the lunch break in Taipei Neihu Technology Park, which consists of more than 2,000 high-tech firms and other industries in the park in Taipei to collect the data. To avoid selection bias, data was collected on different days of the week. Similar to student samples, the data collection time proceeded three days a week and lasted for four weeks. After the completion of all data collection, the next step of the research is to analyze the data for answering if the research questions and hypotheses have been supported.

FINDINGS AND DATA ANALYSIS

Sample Characteristics

Based on the previous evidence, 60% of office workers and 40% of students account for the majority of online shopping, respectively (Chen, 2003). Eight hundred questionnaires were distributed to respondents in the urban cities of Central and Northern Taiwan. The respondents include 320 undergraduate students from five colleges and 480 office workers from companies located in Taipei Neihu Technology Park. Out of 800 surveys, 726 were returned. A total of 661 usable questionnaires were obtained for data analysis; among these, 243 for students and 418 for office workers. Among 661 respondents, 56.81% were female, 43.19% were male. The

average age of online buyers was between 18 and 30. Office online buyers' ages were between 21 and 30, and students' ages were between 18 and 25.

The Measurement Model

According to the two-stage procedure to causal modeling proposed by Anderson and Gerbing (1988), the measurement model was first confirmed, and then the structural model was tested. Eight common model fit measures were used to determine the model fit. These are the ratio of chi-square to degrees-of-freedom (d.f.), adjusted goodness-of-fit index (AGFI), nonnormalized fit index (NNFI), comparative fit index (CFI), relative fit index (RFI), normalized fit index (NFI), Goodness-of-Fit index (GFI), and root mean square error of approximation (RMSEA). An acceptable model should have a greater value than 0.90 in CFI, NFI, NNFI, RFI, and GFI (Byrne, 1989; Joreskog & Sorbom, 1993). RMSEA measures the discrepancy per degree of freedom. A value of 0.05 of RMSEA indicates a close fit and values up of 0.08 represent reasonable errors approximation in the population (Browne & Cudeck, 1993). In addition, chi-square normalized by degrees of freedoms (χ^2/df) of less than 3 is considered better (Geffen et al., 2003b, Joreskog & Sorbom, 1993, Hair et al, 2006). The measurement model had a ratio of Chi-square to degree of freedom of 2.23, AGFI=0.86, NFI=0.97, NNFI=0.98, CFI=0.99, GFI=0.91, RFI=0.97, RMSEA=0.044 (see Table 1). All the model-fit indices exceeded the common acceptance levels suggested by the previous research, suggesting the measurement model exhibited a goodness-of-fit.

Next, the study proceeded to evaluate the convergent validity, reliability, and discriminate validity. All latent constructs and indicator variables were included in the measurement model and had variances extracted that were greater than 0.5 level, which meant that more than one-half of the variances observed in the items were accounted for by their hypothesized factors. A significant factor loading should be greater than 0.5 to demonstrate a good rule of thumb, if that is greater than 0.7 indicates ideal item validity (Hair et al., 2006). In this research, all factor loadings were significant and greater than 0.7 and the model diagnostics showed acceptable fit.

In SEM, reliability can be measured based on scale item reliability and construct reliability. In previous section, coefficient alpha was performed to check the individual scale reliability. Threshold value of reliability is 0.7 or higher. The results reported that all individual scale reliability scores were over 0.7. In addition, individual item reliabilities (R^2) and variances extracted obtained from CFA were all greater than 0.5. High construct reliability indicates that the indicators all consistently measure the same latent construct. The construct reliability for all factors in the measurement model was above 0.7 that suggest good reliability. These results are summarized in Table 1. Overall, the measurement model exhibiting an excellent model fit with data collected, and demonstrated adequate reliability, convergent validity, and discriminatory validity. Furthermore, the discriminant validity was shown by computing the confidence interval of the correlation between two latent variables. In this study, the absolute values of the correlation ranged from 0.22 to 0.81. None of the intervals contained 1, suggesting each construct was uni-dimensional and distinct.

Table 1 Results of Measurement Model

Exogenous Variables	Indicator Variables	Standardized Factor Loadings	Error Variance	T-values	R ²	Construct Reliability	Variance Extracted
Utilitarian Value (η ₁)	Utilitarian 1	0.73	0.60	16.88	0.53	0.76	0.51
	Utilitarian 2	0.74	0.46	20.31	0.55		
	Utilitarian 3	0.73	0.47	19.99	0.53		
Trust Value (η ₂)	Trust 1	0.82	0.33	24.10	0.65	0.86	0.66
	Trust 2	0.81	0.34	23.87	0.65		
	Trust 3	0.82	0.34	24.07	0.64		
Hedonic Value (η ₃)	Hedonic 1	0.72	0.60	16.27	0.52	0.79	0.56
	Hedonic 2	0.71	0.55	17.41	0.50		
	Hedonic 3	0.86	0.26	23.85	0.74		
Loyalty Intention (η ₅)	Loyalty 1	0.87	0.22	23.62	0.76	0.89	0.73
	Loyalty 2	0.85	0.25	22.95	0.72		
	Loyalty 3	0.79	0.29	20.26	0.72		

Note. Fit Indices: $\chi^2 = 1937.07$, d.f.=869, $\chi^2 /d.f.=2.23$, RMSEA= 0.044 CFI=0.99 AGFI=0.86 NFI=0.97, NNFI=0.98, CFI=0.99, RFI=0.97

However, after the modification, all constructs fulfilled the requirement of reliability, convergent validity, and discriminate validity. Table 2 summarized the measurement of the latent constructs in the model.

Table 2 Measurement of the Latent Variables in the Structural Model

Latent Variables	Indicator variables	Scale Items
Utilitarian value	Utilitarian1	This site offers a good economic value.
	Utilitarian2	When I make a purchase from this site, I feel not only convenient but also time and energy saving.
	Utilitarian3	This site provides a diversified selection of products for customers.
Trust value	Trust1	I trust the product or service I purchased from this website.
	Trust2	I believe the information provide from this website.

	Trust3	Overall, this website is worth to trust.
Hedonic value	Hedonic1	This site not only sells products or provides services, but also entertains me.
	Hedonic2	I get so involved when I shop from this website that I forget everything.
	Hedonic3	I enjoy surfing and shopping from this website.
Loyalty intention	Loyal1	I intend to keep shopping from this website even if its price is slightly higher than other competitors' prices.
	Loyal2	In the future, this website is one of the first places I will look when I need to find certain kinds of merchandise
	Loyal3	I would recommend this website to my friends.

The Structural Model

After assessing the reliability and validity of measurement model, the overall fit of the structural model needed to be estimated. In the structural model, relationships between the exogenous variables and endogenous variables were tested, and then the direct and indirect effects of perceived value on loyalty intentions were also investigated.

Table 3 reported the model goodness-of-fit statistics; overall, the model fit the data well. Chi-Square was 2238.25 ($p < 0.001$) with d.f.=912. However, the p-value is less meaningful as sample sizes become large, since this study had a large sample size, chi-square was difficult to use as the indicator of SEM fit. Researchers recommend eight common indices to measure whether the model has a goodness-of-fit or not (Hair et. al., 2006). In this study, χ^2 -to-d.f. ratio was less than 3. RMSEA equaled 0.048, smaller than the cut-off value of 0.05. Furthermore, CFI equaled 0.98 and NFI was 0.97. As shown in Table 3 all the model-fit indices exceeded the common acceptance levels suggested by previous research, demonstrating that the structural model exhibited a good model fit.

Table 3 Model Goodness of Fit Statistics

Goodness-of-Fit Indices	Recommended value	Estimates
χ^2 /d.f.	≤ 3	2.45
Adjusted Goodness of Fit Index (AGFI)	≥ 0.80	0.84
Normed Fit Index (NFI)	≥ 0.90	0.97
Non-Normed Fit Index (NNFI)	≥ 0.90	0.98
Comparative Fit Index (CFI)	≥ 0.90	0.98

Goodness-of-Fit (GFI)	≥0.90	0.91
Relative Fit Index (RFI)	≥0.90	0.97
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08	0.048

Table 4 showed the results of the structural model and listed the standardized path coefficients, t-values, and the results of hypothesis testing. Besides, results of the Structural Path Coefficients (Standardized Values) were also presented in Figure 1.

Table 4 Results of Structural Model and Hypotheses Tests

Structural Paths	Standardized Path Coefficients	T-value	Hypothesis Testing
H3a:Utilitarian Value →E-loyalty Intention	0.14*	2.07	Support ed
H3b:Trust→E-loyalty Intention	0.25***	3.18	Support ed
H3c:Hedonic Value→ E-loyalty Intention	0.08	1.62	Not support ed

Note. For one-tailed test, d.f.=636, "***": 0.01 < p-value < 0.05, 1.647 < t < 2.332, "**": 0.001 < p-value < 0.01, 2.332 < t < 3.103, "****": p-value < 0.001, t > 3.103

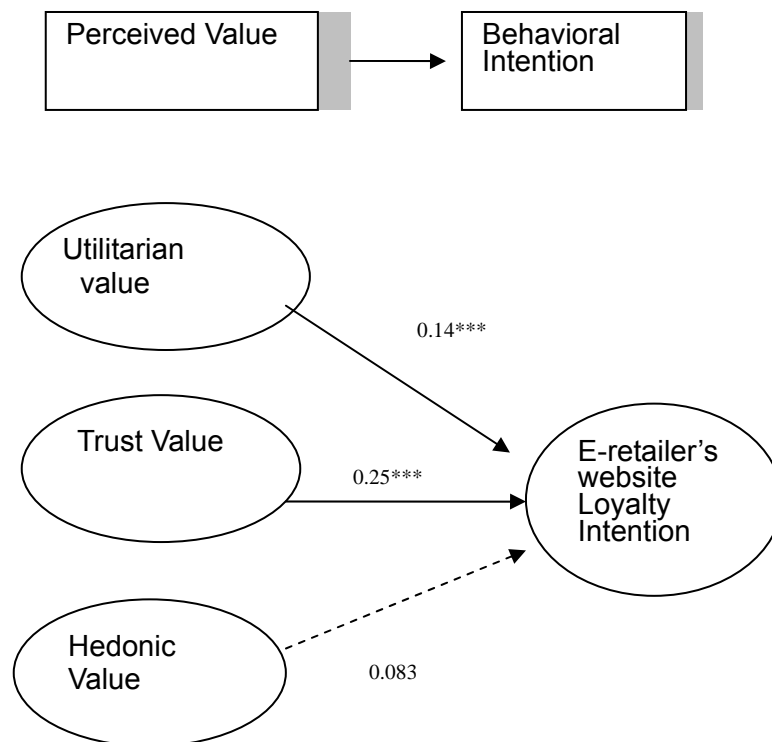


Figure 1. Results of the structural path coefficients (Standardized Values)

Note. Model Fit Indices: Chi-Square=2238.25, d.f.=912, RMSEA= 0.048, GFI=0.91 , AGFI=0.84 , NFI=0.97 *p<0.05, **p<0.01, ***p<0.001

Testing of Hypotheses

Antecedents of E-retailer Loyalty Intention

Utilitarian and trust values did have significant effects on e-store loyalty intention, but hedonic value did not show a significant effect on e-loyalty intention. Since utilitarian value and trust value were positively related to loyalty intention, hypotheses 3a and 3b were supported. Trust had the biggest effect on loyalty (H_{3b} : $b_{3b}=0.25$), followed by utilitarian value (H_{3a} : $b_{3a}=0.14$). The model with e-retailer loyalty intention as the dependent variable had an R-square of 0.68. Table 5 summarized the results of all hypotheses proposed in this research model.

Table 5 Summary of Hypotheses Tests (continued)

Structural Paths	Hypothesis Testing
H3a: Utilitarian value → Loyalty intention	Supported
H3b: Trust value → Loyalty intention	Supported
H3c: Hedonic value → Loyalty intention	Not Supported

CONCLUSIONS AND RECOMMENDATIONS

In this study, perceived value was operationalized as key benefits searched for online purchase. The three components of perceived value that were identified were utilitarian value, trust value, and hedonic value. The proposed research model based on literature review was adapted to formulate the relationships between the perceived value and loyalty intention. Among three value components, hedonic did not show a significant effect on the loyalty intention, while utilitarian value and trust could directly influence loyalty intention.

The findings conclude that utilitarian value and trust are more important than hedonic value in terms of influencing loyalty intention for online shopping. A comparison of utilitarian value with hedonic value here revealed that utilitarian value has more influence on loyalty intention than hedonic value.

Consumers may obtain hedonic value through various modes such as visual stimulation from the e-retailer’s window shop or exchanging information with other online buyers who have the same interests via the virtual community established by the e-retailer, but the findings of this research discloses that no requirement for commitment toward the site.

However, the effect of hedonic value should not be neglected because customers would naturally return to the retailer’s website due to the prior pleasuring shopping experience with the e-retailer. Although, the hedonic value has no significant effect upon online loyalty intention toward an e-retailer website, the appearance of the website is still vital to create a pleasant shopping environment for online shopping, in particular for product categories related to clothing and cosmetics. The previous

research showed that when consumers purchased these types of products, they paid much attention to the website and information quality (Hu, 2009). The pleasure for buyers of immersing themselves in beautiful online shopping windows and experiencing the visual and sensory aspects of website atmospherics can contribute to the satisfaction derived from the shopping experience itself like shopping in a physical store. In general, online buyers pay much attention to the visual presentation and quality of the website. Since a beautiful website layout, like an appealing shopping window in a physical store, can bring visual pleasure to customers, it will also attract them to come back again.

The findings from the study suggest that trust is the most important value in building loyalty than utilitarian and hedonic values. Internet technology enables the easy collection of consumer information, which assists retailers to better target their customers (Raghu, Kannan, Rao, & Whinston, 2001). However, consumers have become more concerned about how their information is gathered and utilized, and whether disclosing their personal and financial information on the Internet is secure (Hoffman et al., 1999; Miyazaki & Fernandez, 2001; Miyazaki & Krishnamurthy, 2002). Thus, e-retailers should develop policies regarding information exchange, web systems, and transaction procedures that are designed to generate trust. For example, except for the minimum information in order to complete the exchange such as confirmation, payment and non-repudiation in the case of an online transaction, e-retailers may allow consumers to be anonymous or pseudonymous when engaging in online transactions (Hoffman, Novak, Peralta, 1999).

Although traceable anonymity provides the e-retailers no clues about the consumer's identity, it leaves this information in the hands of a third party. E-retailers can still trace the consumer information back through the third party if it is essential to ensure the completion of a committed transaction. The third party acts as a mediator to protect both sellers and buyers for online shopping. This approach may reduce their lack of trust in online shopping. Besides, website reputation is also a good way to facilitate consumer perceived value of trust for a particular e-retailer because the creditable brand name stands for a quality product or service provided by the retailers they rely on. Resnick and Zeckhauser (2002) addressed that the more reputed firms are the more profitable too, so e-retailers should endeavor to enhance their website reputation for increasing customer trust.

Besides, previous studies on online shopping behaviors focused mainly on the Western buyers. Rarely were buyers in Asian countries taken as the sample group. Hence, the results of the research were unable to reveal the Eastern buyers' perception of retail websites. Thus, it is interesting to compare the results of this study to those of a different research population. A number of past studies that emphasized that culture differences could be applied to studies related to Internet behavior (Tielman, 2003). Hence, cultural differences may cause different shopping habits, value perception, and attitudes towards a website between two different countries.

Overall, part findings of the study are consistent with the previous research that the positive relationships exist between two value perceptions (utilitarian value and trust) of website attributes and loyalty intention (Mathwick et al., 2001; Szymanski & Hise, 2000; Zeithaml et al., 2002), although the lack of evidence shows the relationship between hedonic value and loyalty intention in Taiwan's online buyers. This study not only makes up for the lack of research on internet buyers of Asian countries; but also makes valuable suggestions to online retailers with a global consumer base for understanding consumer value perception of Asian online buyers.

In sum, customer loyalty toward the site is an important competitive advantage for e-retailers to consistently achieve their financial goal. Thus, the perceived value provides insights in helping e-retailers to formulate their online marketing strategies. Specifically, the results obtained in the research offer the following managerial implications for e-retailers.

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