

# E-tailing Commitment: The influence of product quality and delivery services on e-trust and e-satisfaction in China

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## Abstract

This study proposes and tests an integrative model to examine the relations among product quality and delivery services, e-trust, e-satisfaction and e-tailing commitment in China. Analysis of survey data from 415 customers of e-tailing, Confirmatory Factor Analysis (CFA) has been performed to examine the reliability and validity of the measurement model. Structural Equation Modeling (SEM) technique was used to test the hypotheses of the causal model. Our study reveals that product quality and delivery services (i.e. product variety, quality, availability, reliable delivery, package safety and timely delivery) directly influence e-satisfaction and e-trust. Thus trust has both direct and indirect (through e-satisfaction) impact on e-tailing commitment. Consequently, both e-trust and e-satisfaction are significant determinants of e-tailing customer's commitment. Managerial implications, research limitations and future research directions are provided in the following presentations of the findings.

## 1. Introduction

Commitment has great recognition and importance in the literature of relationship marketing. It is a key precursor to the accomplishment of valuable outcomes for instance, future intentions (Kim et al., 2005), and profitability (Anderson and Weitz, 1992). Customer commitment refers as an attitude that reflects the desire to main a valued relationship (Moorman, 1992). This central concept of marketing paradigm has been investigated by researchers in both business to business (Morgan and Hunt, 1994), and consumer context (Verhoef et al., 2002). In recent years, internet has had a profound impact on the subject of marketing. Currently most of the consumers feel comfortable buying products through online mechanism. Therefore, e-tailers have attempted to design website to attract customers to visit and revisit their sites. A lot of studies have explored the factors that could affect customers purchase behavior on the Web (Poddar et al., 2009).

Substantially, in the exchange relationship a product quality has critical importance and it must exist, therefore a business relationship can be built around it. If product does not meet the customers standard and expectations, then they do not have motivation to continue the relationship (Ulaga and Eggert, 2006). Similarly delivery services are vital for developing relationship in the context of e-tailing. Therefore, it is essential that delivery of right product within the promised time frame, with accurate product information available on e-tailer website and customers receive what they are expected to receive from e-tailers (Wolfenbarger and Gilly 2003). Whereas e-tailing is the convenience method of shopping, customers need to wait a couple of days until they received the product in their hands when buying online. Therefore, product handling and shipping has become a great challenge for online retailers (Kim and Swinney, 2009). For instance, the express delivery companies have chartered aircraft to optimizing their high volume areas services of e-tailing in mainland China. Therefore, to fulfill this objective more than 100 cargo jets have been leased by major couriers i.e. SF Express (Group) Co Ltd (private courier service in China) have its own air fleet and although deployed 31 cargo planes at the delivery peak period during November 2013. Similarly, YTO Express (logistics) Co Ltd has run two Boeining 737 cargo planes on the Beijing-Shenzhen route to facilitate delivery. Although, State Post Bureau EMS, express delivery unit has been leased 26 freighters making deals with Air China Cargo Co Ltd

and PEMPCO international. This has been just done to increasing the delivery speed by a few hours (Wei he, 2013).

The objective of this study is to propose and test a model of the online consumers' development of commitment for online retailers, incorporating offline e-tail characteristics, e-satisfaction and e-trust. Particularly, this research focuses on the consumers' attitude and behavior towards e-tailers, not a brand or manufacturer. Thus, within the model we maintain that numerous aspect of e-tail offline characteristics have different impact on developing and enhancing e-satisfaction and e-trust, which in turn, lead to customer commitment. This paper begins with the proposed model and the hypotheses. We described the research design, methodology, result analysis, managerial and researcher's implications, limitations, and suggestions for future research with conclusion.

## 2. Literature review and research Hypothesis

This study draws from previous theories to develop hypotheses with regard to the impact of offline line characteristics of e-tailing i.e. product quality and delivery services on e-satisfaction, e-trust and commitment. We derive a structural equation model (Fig. 1), which demonstrated the hypothesized relationships discussed in the consequent sections.

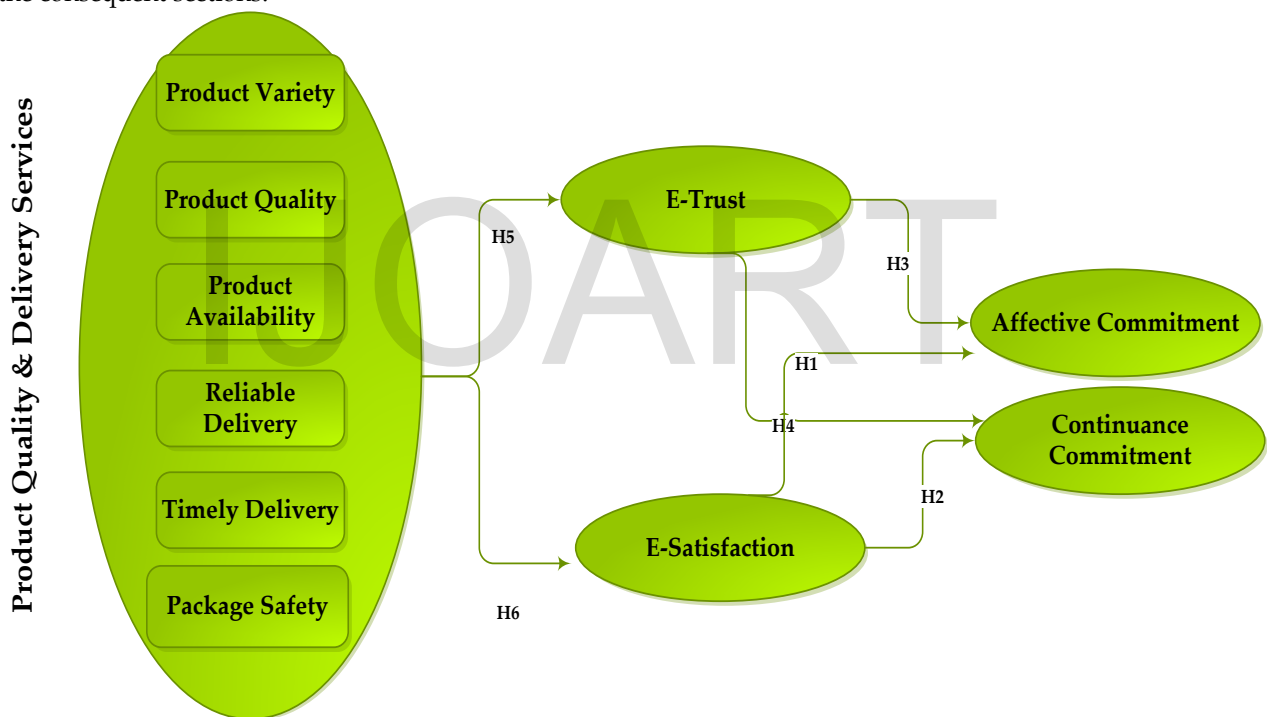


Fig.1 Theoretical Model and Hypotheses

### 2.1 Nature of commitment

Commitment is defined as a n enduring desire to maintain a relationship (Moorman et al., 1992; Morgan and Hunt, 1994). It is also conceptualized as a “pledge of continuity” form one party to another (Dwyer et al., 19987). Some scholars argues that the commitment lies potential for scarifies or sacrifice that one party faces in the event that the relationship ends (Anderson and Weitz, 1992), or for the sake of alternative seeking from the market (Gundlach et al., 1995). Sometimes commitment refers as a resistance to change (Pritchard et al., 1999), and a sort of attitude change (Ahluwalia, 2000). Specifically, marketing scholars and researchers used various

definitions and perspective to characterize two important components of commitment (Gundlach et al., 1995). The first component of commitment is based on liking and identification and second component is based on dependence and switching cost that are called affective and continuance commitment respectively (Allen, N. J., & Meyer, 1990).

The effective commitment is based on the “affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization” (Allen, N. J., & Meyer, 1990). Thus the essence of effective commitment is that customers indulge to acquire an emotional attachment to their partner in a consumption relationship. As customer like to any specific brand or service providers (e-tailers), at that movement they are experiencing the psychological state of affective commitment (Fullerton, 2003). While continuance commitment in exchange relationship is built on the side bets, switching costs and scarcity of alternatives (Allen, N. J., & Meyer, 1990).

## 2.2 The relationship between e-satisfaction and commitment

Satisfaction is “an overall evaluation based on the total purchase and consumption experience with a good or service over time” (Anderson et al., 1994). Thus, e-satisfaction is the precursor of customers’ commitment; it is created after a process. Actually it is the result of customer’s evaluations regarding the product and the key elements of their decision to repurchase (Kasmer, 2005). Consequently, customer satisfaction is one of values for customers that they expect from firm to deliver in the context of exchange. We would expect that commitment is one of the favorable consequences of satisfaction (Bansal et al., 2004). Similarly online customers over all evaluations of satisfactory consumption experiences make a positive impact on the degree of commitment in the relationship (Brown et al., 2005) In the context of e-tailing, online customer satisfaction is quite difficult before gain their trust. Therefore, trust also affects e-satisfaction in this regard. According to Berry (2000), trust is very essential for satisfaction (Berry, 2000). In fact, online consumer who trusts on e-tailer will be satisfied and more willing to commit to it. Yoon (2002) has examined the correlation between trust and satisfaction (Yoon and Kim, 2000). Although trust has proposed to be instrumental in online business to consumer relationship (Urban et al., 2000). Yet, a little research has been investigated the role of trust in B2C exchange context (Milne and Boza, 1999). Previously, it is observed that satisfaction has positive influence on commitment (Vasudevan et al., 2005; Abdul-Muhmin, 2005). In line with these authors, we propose that in the context of online shopping e-satisfaction is positively associated with affective and continuance commitment. Thus, we propose subsequent hypotheses.

**H1: E-satisfaction will positively affect affective commitment**

**H2: E-satisfaction will positively affect continuance commitment**

## 2.3 The relationship between e-trust and commitment

Trust has been considered the essential ingredient for successful relationships (Dwyer et al., 1987; Moorman et al., 1992). It refers as “a willingness to rely on an exchange partner in whom one has confidence” (Moorman et al., 1992). Practically it is observed that expectation of trustworthiness results from the ability to expertise, reliability and intentionality. Morgan and Hunt (1994) defined trust as the confidence in the exchange partner’s ability, reliability and integrity (Allen and Meyer, 1990). Trust is the determinant of commitment and successful business relationship (Morgan and Hunt, 1994). Walter and Ritter (2003) investigated that in the presence of buyer trusts a seller they are likely to make more sacrifices due to strong conviction about the future potential of relationship. In this way a buyer who is committed feels more vulnerable. Hence, buyers will become committed to those sellers that they can trust. It is found that trust influenced positively on commitment (Tellefsen, 2002). Therefore, it is suggested that trust influenced firms to focus on the positive motivation to stay in the relationship based on the feeling of connectedness and identification with each other (affective commitment), less due to continuance (continuance commitment) reasons to stay with the supplier (De Ruyter et al., 2001). Thus, we propose subsequent hypotheses.

**H3: E-trust will positively affect affective commitment**

**H4: E-trust will positively affect continuance commitment**

## **2.4 The relationship between product quality/delivery services, e-trust and e-satisfaction**

Buzzell and Gale (1987) defined product quality as customer's perceptions of all non-price attributes of an organization's goods and services. This definition comprises both intrinsic characteristics and associated all services (Cowherd and Levine, 1992). The various kinds of products have been traded by online retailers. Thus online product quality concept is similar with the conventional traded products. Particularly in online shopping there are two most influential factors have been considered quite critical and important while making decisions such as product quality and product variety (Jarvenpaa and Todd, 1996). As customer's expectation has been met online in this manner they tend to continue to visit that specific e-tailor. Keeney (1999) argues that online firm's fundamental objective is to maximize product quality for online buyers. Similarly it argues that cost minimization and quality maximization are the critical success factor of e-commerce. In fact customer's become satisfied when product performance meets customers' expectations. Patterson argues that product performance (quality) is the most fundamental determinant of customer's satisfaction (Patterson, 1993). Lin et al. (2011) found that product quality has positively improved customer's satisfaction in internet shopping. Moreover, e-tailor has been offering consistent quality products along with maximum product depth and length and ensures round the clock assurance of product availability to their customers. Therefore, these sorts of e-tailor product related characteristics can develop, sustain and improve customers trust in internet shopping. Houston and Taylor (1999) found that product quality is the fundamental determinant of customer's willingness to purchase from the website and reflects the Web trust seal. Kaplan and Nieschwietz (2003) indicated that perceived product quality is the important measure of the outcome variable impacted by the formation of trust.

In the scenario of online shopping environment reliable, safe and timely delivery is fundamental and integral objective of online buyers. Customers tend to buy products at home and they required safe, reliable and quick delivery of desired product at their destinations. In online environment timely and reliable delivery play critical role to meeting customer's expectations and make them satisfied. Customers can switch very easy from one web to another web page just a single click away or even customer moved towards conventional click and mortar retailers due to the late, unsafe and undesirable products delivery.

Online customers pay much more concentration and considered product delivery as an important factor as they have paid for it. However, reliable delivery is "means objective" while timely delivery is "fundamental objective" of online retailers in the e-commerce (Keeney, 1999). Particularly it has been considered three aspects critical for delivery performance of the firms and it encompasses that suppliers of product should be able to meet delivery schedule (Timely delivery), adjust and accommodate certain changes in delivery schedule (flexibility) and consistently deliver right products (accurate) in the hand of customers (Cater and Cater, 2009). It is found that delivery performance has positive influence on customer's satisfaction (Chakraborty et al., 2007), and it is the antecedent of satisfaction (Ulaga, 2003). Liu et al. (2008) argues that delayed delivery of product can make customers dissatisfied. Trabold et al. (2006) stated that offline feature of online retailing such as delivery has significant effect on e-satisfaction as well it concentrate on the outcome quality of the service. Wolfenbarger and Gilly (2003) highlighted that delivery services of online retailer is the most critical factor to examine e-satisfaction level compared to other dimensions of the e-tailor quality performance. It is investigated that receiving the accurate product on expected time schedule according to promised conditions of the online retailer has effect on the customer satisfaction (Collier and Bienstock, 2006). Ahn, Ryu, and Han (2005) pointed out that reliable and timely delivery of product in online retailing increase customer's satisfaction and encourage repeat purchases. Wolfenbarger and Gilly (2003) indicated that fulfillment is described as the delivery of right product within expected time frame along with accuracy of product on the basis of that information which has been displaced on the online retailer website. It is examined that in e-trust studies that consumers are more concerned about order fulfillment when establishing trust with an online retailer (Reynolds, 2000). It is matter of competence that online retailer deliver their promised services in a reliable and honest manner (Singh and Sirdeshmukh, 2000). Thus, it is suggested that delivering and fulfilling promises and consumers belief towards products or services information presented would be a prerequisite to

generating consumer trust in online shopping (Markey and Hopton, 2000; Urban et al., 2000). Thus, we propose subsequent hypotheses.

**H5: Product quality and delivery services will positively affect e-satisfaction**

**H6: Product quality and delivery services will positively affect e-trust**

### 3. Research Methodology

#### 3.1 Questionnaire design

We investigated the literature to identify valid measures for this study related constructs and adapted existing scales to measure offline e-tailing dimensions, i.e. product quality and delivery services (Ahn et al. 2005), e-satisfaction (Fornell et al. 1996; Kim et al. 2009), e-trust (Garbarino and Johnson 1999; Ribbink et al. 2004) and commitment (Fullerton, 2003). Initially, scales from literature were in English, therefore initial questionnaire was developed in English. Later, English version questionnaire were translated into Chinese by two Chinese Master and Ph. D students. Moreover, Chinese version questionnaire were translated back into English, so this version of questionnaire was counter checked against the original English version for discrepancies and their rectification. It is just done to facilitate appropriate measurement development and to ensure meaning consistency, to improve understandability of the survey and proper use of terminology in Chinese. All the indicators in the questionnaire were measured using a 7-Point Likert scale ranging from strongly disagree to strongly agree (1= strongly disagree; 7= strongly agree).

#### 3.2 Sampling and data collection

Fung Business Intelligence Center reported that Chinese online shoppers are young people and over 60% were aged 30 or below in 2012. The trend of middle aged customers has been observed to buy online, especially this group of buyers have more purchasing potential (Fung Business Intelligence Center 2013). Therefore, it suggests that universities students are likely to be the first and more attractive consumers segment to adopt e-commerce due their high education level and income potential (Lightner et al. 2002). Thus, We used convenience sampling and paper survey method to collect data from different universities locations (libraries, research labs, canteens, mini markets) in mainland China. In our study 480 respondents have completed the survey, after sorting and removing errors 415 valid and usable questionnaires left for data analysis. The response rate was 86 percent. The profile of respondents and their characteristics are stated in Table 1.

**Table 1: Respondent profile (n=415)**

Demographics Variable	Category	Sample	Percentage
<b>Gender</b>	Male	226	54.5
	Female	189	45.5
<b>Age (Years)</b>	Below-20	83	20.0
	20-29	327	78.0
	30-39	5	1.2
<b>Education Level</b>	High School	3	0.7
	Diploma	1	0.2
	Bachelor	244	58.8
	Master	152	36.6
	Ph. D	15	3.6
<b>Profession</b>	Students	415	100
<b>Shopping Experience (Years)</b>	Under 1	52	12.5
	1-4	264	63.6
	Over 4	99	23.9

### 3.3 Construct development

We used Kaiser-Meyer-Olkin (KMO) to measure sampling adequacy and the Bartlett test of sphericity. The output, which showed KMO value of 0.886 with the significance of Bartlett’s test at 0.000 level, indicates the data for exploratory factor analysis (EFA) fitting. We used maximum likelihood analysis for data reduction and promax rotation with Kaiser Normalizations for clarifying the factors. Hence EFA was conducted with specifying five numbers of factors. The cumulative variance explanation reaches 63%. All the items have strong loadings on the construct in the pattern matrix which are >0.30 (Hair et al., 1998). The results of EFA are shown in Table 2.

The internal consistency reliability of all items was examined by Cronbach alpha and item to total correlations. Therefore, the alpha coefficients and item to total correlations for each construct are shown in Table 3. The Cronbach’s alpha of all measurement constructs ranges from 0.89 to 0.84. A Cronbach’s alpha of value 0.7 or higher is commonly considered as a cut off for reliability (Nunnally 1978; Hair et al. 2006). Convergent validity has been examined based on measurement items standardized factor loadings, composite reliability and the variance extracted measures. The results of convergent validity test are also presented in Table 3. Standardized factor loadings of all items in each construct range from i.e. product quality and delivery services (0.877-0.667), e-satisfaction (0.878-0.844), e-trust (0.880-0.601), affective commitment (0.870-0.682) and Continuance commitment (0.873-0.697) that exceed the recommended level of 0.60 (Hair et al. 1998). The composite reliabilities (CR) range from 0.91 (product quality and delivery services) to 0.87 (continuance commitment) which exceed the recommended level of 0.70. The average variance extracted (AVE) measure ranges from 0.74 (e-satisfaction) to 0.55 (e-trust) which is better than recommended value of 0.50 (Hair et al. 1998). The higher value of AVE, CR and factor loadings results, therefore adequately demonstrates the convergent validity of the measurement items.

**Table 2. Results of exploratory factor analysis (EFA)**

Items	Product Quality and Delivery Services	E-Trust	Affective Commitment	Continuance Commitment	E-Satisfaction
PQ	0.860				
PA	0.859				
TD	0.688				
PS	0.634				
RD	0.615				
PV	0.518				
T1		0.618			
T2		0.582			
T3		0.565			
T4		0.812			
T5		0.821			
T6		0.766			
AF1			0.815		
AF2			0.915		
AF3			0.760		
AF4			0.681		
CC1				0.478	
CC2				0.898	



CC3	0.808
CC4	0.510
S1	0.727
S2	0.841
S3	0.770

Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization. a. Rotation converged in 6 iterations. \*(PA: Product availability, PQ: Product quality, PV: Product variety, RD: Reliable delivery, TD: Timely Devlivery, PS: Pakage safety, T: E-trust, S: E-satisfaction, AC: Affective Commitment, CC: Continuance Commitment)

**Table 3. Results of internal reliability and convergent validity tests**

		Internal Reliability		Convergent Validity		
	Construct items	Cronbach $\alpha$	Item Total Correlation	Standardized Factor Loadings	Composite Reliability	Variance Extracted
P.Q & Del. Services	PQ	0.89	0.862	0.877	0.91	0.62
	PA		0.805	0.800		
	TD		0.754	0.815		
	PS		0.734	0.766		
	RD		0.732	0.773		
	PV		0.627	0.667		
E-Trust	T1	0.85	0.636	0.617	0.88	0.55
	T2		0.649	0.601		
	T3		0.565	0.648		
	T4		0.692	0.823		
	T5		0.694	0.880		
	T6		0.677	0.811		
AFF. Commit.	AF1	0.89	0.690	0.682	0.88	0.66
	AF2		0.824	0.825		
	AF3		0.768	0.870		
	AF4		.751	0.846		
Cont. Commit	CC1	0.84	0.656	0.752	0.87	0.63
	CC2		0.762	0.873		
	CC3		0.767	0.847		
	CC4		0.644	0.697		
E-SAT	S1	0.89	0.793	0.878	0.90	0.74
	S2		0.805	0.858		
	S3		0.784	0.844		

#### 4. Analysis and results

We used AMOS-IBM version 21 to analyze the data and demonstrate structural equation modeling (SEM) of this study. It is a powerful multivariate analysis technique used to measure latent variables and investigate causal relationship among proposed model variable. Specifically, SEM allows conducting confirmatory analysis (CFA) for theory development and testing. The overall model fit indices are  $\chi^2 = 276.47$ ,  $df = 148$  ( $p$ -

values=0.00), GFI=0.94, AGFI=0.91, NFI=0.95, CFI=0.98, RMSEA=0.046 indicating that model is acceptable with no substantive differences. Moreover, fit indices of structural model are presented in Table 4. The path between product quality and delivery services and e-satisfaction (B=0.54), product quality and delivery services and e-trust (B=0.76), e-trust and e-satisfaction (B=0.31), e-satisfaction and e-loyalty (B=0.49), e-trust and e-loyalty (B=0.17) are found significant and support H1, H2, H3,H4, and H5. In this way product quality and delivery services has direct significant influence on e-satisfaction and indirect impact via e-trust. This evidence shows that e-tailing should design effective mechanism of information management to improve their product quality, variety, availability by significantly considering e-tailing delivery services in the context of reliability, package safety and timely perspective in order to develop and sustainable relationship with online customers. This study shows that e-satisfaction and e-trust are the direct antecedent of e-loyalty in the context of online shopping. The results are consistent with the previous literature, which prove that higher level of customer’s satisfaction (Morgan and Hunt 1994; Zins 2001) and e-trust will lead to greater customer loyalty (Kim et al. 2009). The standardized parameter estimates of hypothesized paths are presented in Table 5.

**Table \*\*. Fit indices for structural model**

Fit Index	Scores	Recommended cut-off values
<b>Absolute fit Measures</b>		
Minimum fit function chi-square (x2 )	382 (p=0.00)	The lower, the better
Degree of freedom (d.f)	208	
(x2)/d.f	1.837	<5
Goodness-of-fit index (GFI)	0.924	>0.80
Root mean square residual (RMSR)	0.045	<0.05
<b>Incremental fit measures</b>		
Adjusted goodness-of-fit index (AGFI)	0.899	>0.80
Tucker-Lewis index (TLI)	0.966	>0.90
Normal fit index (NFI)	0.942	>0.90
Comparative fit index (CFI)	0.972	>0.90
<b>Parsimonious fit measures</b>		
Parsimonious normed fit index (PNFI)	0.774	The higher, the better
Parsimonious goodness-of-fit index (PGFI)	0.696	The higher, the better

**Table 5. Standardized parameter estimates of hypothesized paths**

Hypotheses	Path	Coefficient (t-value)	Result
H1	E-satisfaction→ affective commitment	0.29 (3.05)*	Supported
H2	E-satisfaction→ continuance commitment	0.24 (3.02)**	Supported
H3	E-trust→ affective commitment	0.50 (8.30)	Supported
H4	E-trust→ continuance commitment	0.58 (8.21)	Supported
H5	E-trust→ e-satisfaction	0.20 (5.28)	Supported
H6	Product quality & Delivery services→ e-satisfaction	0.44 (12.64)	Supported
H7	Product quality & Delivery services→ e-trust	0.19 (4.20)	Supported

\*p<.002 & \*\*p<0.05

The purpose of this study is to propose and test an integrative model of e-tail offline quality dimensions effects on e-satisfactions, e-trust and its influence on commitment (i.e. affective commitment, continuance commitment). The results indicate that e-satisfaction and e-trust has a significant and direct relationship with online customers’ commitment in the e-tailing context. The results suggest that offline e-tail quality dimensions have different effects on e-satisfaction and e-trust. In particular, product quality and delivery services are found to be the strongest predictor for e-satisfaction and e-trust. Consequently, e-tailing trust is more important to developing commitment between e-tailers and their target consumers relative to the e-satisfaction. It is also observed trust is complementary with e-satisfaction, it also impact on e-satisfaction and simultaneously on both sorts of commitment.



In online retailing context, consumers prefer that their e-tailer should provide product quality and delivery services according to their promises. Particularly positive evaluation on the retailer's product quality and delivery services increases consumer level of e-satisfaction and e-trust. Moreover, e-trust has contribution to improve online customer's satisfaction. The product quality and delivery services in the context of quality, availability, variety of products, reliable and timely delivery and package safety e-tailers have positive significant effect on e-satisfaction, e-trust that leads to affective and continuance commitment of online consumers. Commitment is essential ingredient and prerequisite for e-loyalty.

## 5. Managerial and researchers implications

This study should help marketing practitioners to better understand the inter-relationship among product quality & delivery services, e-trust, e-satisfaction as well as the offline characteristics of e-tailing mechanisms to enhancing e-tailing commitment. First, product quality and delivery services has been characterized as a product variety, product quality, product availability, reliable delivery, package safety and timely delivery, that affects both e-trust and e-satisfaction. Thus, product quality and delivery services elements are key building blocks to improving e-satisfaction and e-trust which determine the e-tailing commitment. Second, it investigated that e-satisfaction and e-trust are direct determinants of e-tailing commitment. Obviously, e-tailers are concerned with these outcomes and especially in this context they need to build and monitor both e-satisfaction and e-trust. In addition, e-commerce customer satisfaction is more significantly associated with e-loyalty as compared to e-trust. Third, in this study casual model, product quality and delivery services is an efficient vehicle to improve customer trust and enhance e-satisfaction and in turn customer commitment towards e-tailing. Therefore, our results can help online retailers realize the role of offline features as a product quality and delivery services in building e-satisfaction, e-trust and e-tailing commitment. Particularly, China is the largest single market in the world. Therefore, knowledge about Chinese consumers is still remains insufficient (Zhao et al., 2006). Substantially, it is vital to building sufficient knowledge base about the Chinese market is necessary frontier for marketing academicians.

## 6. Conclusion, limitations and future research directions

This study examines a model incorporating product quality and delivery services, e-commerce customer's satisfaction and trust and commitment. Among this, e-tailing in mainland China customer's e-satisfaction and e-trust directly influence e-tailing commitment. The contribution of this study are that we were able to see and recommend that in terms of the extended e-tailing quality measures by including offline characteristics and how the customers regard the quality measures of online shopping. It is empirically demonstrated that the offline characteristics have significant effect on customer satisfaction and trust. It suggests that online retailing managers and developers should have domain specific and integrative approach to evaluate the e-tailing, and can use selective strategies to enhance customer beliefs, improve customer positive intentions by considering offline characteristics along with online features of e-tailing. This study has several limitations. First, sample of this study consists of students which might not be a true representative of general population of China in the context of e-tailing. Second, this study does not distinguish various product or brand categories in testing and evaluating the casual model of e-loyalty. Finally, results generalization of this study is limited in the context of online shopping in China, because data or observations were drawn from mainland China. There are chances that online shopping in other countries may not resemble those in China. Therefore, future studies may be conducted to examine the specific product category or brand influence on e-loyalty in e-tailing. It is also suggested to investigate the online and offline antecedents of e-tailing commitment in the context of diverse countries, cultures under scenario of different circumstances.

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