



## Determinants of Customer e-Loyalty among e-Commerce in Chinese People's Perspective: A Case Study Beijing, China

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#### Abstract

**Purpose** – This study aims to evaluate and validate those relations influencing variables of e-loyalty, e-satisfaction, and e-trust.

**Design/Methodology/Approach** – This study examines how e-trust, e-satisfaction, and e-loyalty affect Chinese e-commerce customer loyalty. This study will examine how each component influences e-commerce client loyalty. The literature review yielded a conceptual framework. Online Chinese clients provided the data. Multiple linear regression tests the hypothesis thru the JAMOVI program. This study used primary and secondary sources to generate data. Researchers can get primary data from survey respondents. Primary data is credible because it was gathered from a responder based on the study's criteria. A questionnaire survey was used to collect primary data from Beijing-based Chinese e-commerce users. Individuals provided primary data. In addition, respondents rated their experiences on a 5-point Likert scale. This enables researchers to analyze e-commerce customer loyalty. Then, collecting data from 384 respondents, the researcher coded and tested the hypothesis.

**Findings** – Findings indicated that Convenience and Enjoyment impact E-satisfaction. Moreover, two variables impact E-trust: the clear shopping process and a reliable payment system. Finally, E-satisfaction and E-trust significantly influence E-loyalty.

**Research Limitations/Implications** – The investigation focused on three Beijing e-loyalty indicators due to time restrictions. The simple buying process and reliable payment method, e-trust, and e-satisfaction. Future research will need a similar investigation to increase component comprehension. This study will assess whether to add e-loyalty elements. Further research with a broader population and sample size will improve generalizability and trustworthiness. Participants are Chinese e-commerce users; conclusions may not apply to others. New research in other nations may yield better outcomes. The research model does not account for indirect or mediated relationships in this study's data.

**Originality/value** - Customers are delighted when they can conveniently shop online, especially when businesses offer those rewards and discounts. This is true when the organization offers online shoppers prizes and discounts. Customers' perceptions of a website's security affect their online trust. Plus, a faster shopping experience and a safe payment mechanism. Trust and contentment impact a customer's intention to buy again.

**Keywords** – E-commerce; convenience; enjoyment; clear shopping process; reliable payment system; E-satisfaction; E-trust; E-loyalty

**JEL code classification** – M10, M12, M15

## 1. INTRODUCTION

### 1.1 Background of the study

Due to the advantages e-commerce brings to businesses, e-commerce information has become a central focus of e-

commerce research in recent years. E-loyalty encourages repurchase, characterized by clients' accountability and positive attitude toward online companies (SAFA, 2014). E-commerce loyalty refers to an individual's intention to purchase from the same firm again based on his previous



transactions. Therefore, researchers and practitioners must discover the characteristics influencing e-loyalty (Tsai & Huang, 2007). According to Wang et al. (2006), most previous studies on e-loyalty were dispersed, and there were few studies on the formation structure of e-loyalty. Loyal customers provide organizations with enduring benefits and are regarded as valuable assets. Loyal clients solicit new clients to purchase their viable businesses and provide enormous benefit sources (Chen, 2012). Because e-loyalty saves operating costs, loyal customers buy more than others do. Although the formation cost of E-loyalty is greater than that of traditional trade, once this relationship is established, the income and growth rate will be faster (Cyr et al., 2007). The previous study has shown the importance of creating e-commerce loyalty in e-commerce. E-trust and e-satisfaction are crucial in describing the establishment of e-loyalty (Chang & Chen, 2008). Various studies have investigated the sequential effects of e-satisfaction and e-trust. The effect of the live atmosphere on enjoyment and amusement. The research focuses on Chinese customers' website participation, buying intent, and attitude. This study aims to demonstrate that when clients profit, enjoy, and are well-versed in e-commerce, they are satisfied, and they trust online companies when they have a safe and transparent buying experience, a dependable payment system, and friendliness. E-trust and e-satisfaction ultimately lead to the re-communication and establishment of E-loyalty (Mazaheri et al., 2011).

### 1.2 Problem statements

As previously stated, the number of individuals utilizing e-commerce services has expanded substantially over the past few years and has become increasingly popular in China. Due to the rapid expansion of e-commerce, many businesses would like to invest and operate in this area. In addition, several large food firms in China, such as PDD, JD, and Taobao, offer e-commerce services, resulting in intense competition in the online shopping segment. A business's profitability could decline due to the market's intense competition. In addition, the client has many options when selecting a service; therefore, the user may use services from competitors and may not be loyal to the same company, resulting in a drop in e-loyalty. This study will identify the elements influencing e-loyalty to e-commerce services in China. E-loyalty is crucial for analyzing an organization's profitability and productivity and persuading clients to purchase from the same firm rather than a competitor. Determining the factors that drive e-loyalty is thus essential for Chinese e-commerce enterprises. E-loyalty could be used to improve corporate performance.

### 1.3 Objectives of the study

As previously mentioned, e-loyalty, e-satisfaction, and e-trust are influenced by a number of major factors, for independent variables, convenience, enjoyment, clear shopping process, reliable payment, e-satisfaction, and e-trust system affecting dependent variables including e-loyalty. Furthermore, e-trust and e-satisfaction (independent variables) impact e-loyalty (dependent variables). This study aims to evaluate and

validate those relations influencing variables of e-loyalty, e-satisfaction, and e-trust:

- 1) To describe the influence of convenience and enjoyment toward e-satisfaction concerning e-loyalty among e-Commerce in Chinese people's perspective.
- 2) To describe the influence of a clear shopping process and reliable payment system toward e-satisfaction concerning e-loyalty among e-Commerce in Chinese people's perspective.
- 3) To describe the influence of e-satisfaction and e-trust toward e-satisfaction concerning e-loyalty among e-Commerce in Chinese people's perspective.

### 1.4 Research questions

The research questions in this study have been designed to fit with the objectives, as mentioned below:

1. Does convenience and enjoyment significantly impact e-satisfaction concerning e-loyalty among e-Commerce in Chinese people's perspective?
2. Does a clear shopping process and reliable payment system significantly impact e-trust concerning e-loyalty among e-Commerce in Chinese people's perspective?
3. Does e-satisfaction and e-trust significantly impact e-loyalty among e-Commerce in Chinese people's perspective?

### 1.5. Significance of the research

Retaining loyal customers is key to e-commerce success. There is a relationship between the profitability and growth of companies and customer purchasing with loyalty (Chen, Shang & Kao 2009). The competition between e-commerce services is intense, which could lead to a drop in the market profit of the business in this section. E-loyalty is important in business for a number of reasons. Firstly, loyal customers are likely to have a positive attitude toward the business and spread word of mouth to their colleagues, which will attract new customers. Moreover, customers loyal to the company are more willing to purchase from the same company again, which lead to customers' will repurchase intention and increase the business's revenue. Thus, the e-loyalty intention is crucial to improving business performance. So, this research is being conducted to identify what factors influence customer loyalty and repurchase intention.

To begin with, the findings of this study will help e-commerce service businesses to understand the factors affecting e-loyalty. Moreover, this study could be helpful for the e-commerce service industry to come up with a strategy to increase e-loyalty. In addition, this study could be beneficial for the researcher to use as a reference for future research in e-loyalty toward e-commerce service businesses, including factors that affect e-loyalty, such as convenience, enjoyment, clear shopping process, reliable payment system satisfaction, and e-trust.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1 Theories related to each variable

#### 2.1.1 Convenience

Chen et al. (2010) say that convenience is the degree to which customers think a website is easy to use, simple, and straightforward. Access to information and how easy it is to use greatly affect how happy customers are with the transaction process. If customers cannot figure out how to use the system, they will leave the e-commerce site without doing anything or buying anything. Hernandez looked at the regulatory role of e-purchase experience in e-commerce (Salehi et al., 2012; Nitchote & Nuangjamnong, 2022). They focus on two types of clients: those who have done business online before and those who have not. Getting customers to buy for the first time over the Internet is different from getting them to buy again. More e-commerce experiences will make buying things online easier and more fun. (Hernández et al., 2010; Kaewmahaphinyo et al., 2020). Lin et al. (2011) study also show that search tools in e-business systems help customers find the information they need. Accessible and visible information is an important part of making e-commerce easy for customers, with short response times and quick transactions that require the least amount of custom work. The theory of minimum effort talks about how people are happy when they reach their goals with the least amount of work and supports using convenience factors in research. In addition, Qiu and Li (2008) say that the perceived ease of use in the technology acceptance model shows that e-commerce is convenient for customers. Regarding e-commerce, customers want things to go quickly and well. If customers are unhappy with online shopping, they will not return to buy again.

### 2.1.2 Customer enjoyment

DUBÉ et al. (2003) say that customer enjoyment means that the customer has a good experience with the computer system. Perceived enjoyment also means that information that affects customer satisfaction and perception is being processed. In recent years, online customer behavior has emphasized self-indulgence and talked about how fun and kind it is to shop online. In e-commerce, "pleasure" means how good it feels to buy something. The effect of hedonic value on customer satisfaction was examined based on the customer's gender and income (Kim et al., 2012; Ly et al., 2020). Bridges and Florsheim (2008) looked into how easy, enjoyable, and safe shopping affects e-satisfaction. In e-commerce, a pleasant shopping experience will lead to more sales and customer loyalty. The results show that customers are happier with e-commerce platforms when they have a good shopping experience and their needs are considered. Van and Ling (2008) looked at how the way information is organized, the look of the screen, and the Internet experience affect customer satisfaction. Their research shows how a website looks will affect how much customers like it and make them want to buy from it again.

Kim et al. (2005)'s study shows how communication theory can be used to study how people communicate and share information. This idea says that the customer is affected by the quality of delivery and information. According to Hwang (2010), and Tun Aung and Nuangjamnong (2022), a different study examined how gender affects how people use e-commerce systems. The results showed that women are more

affected by enjoyment as an intrinsic motivator than men are. In this framework, the customer's enjoyment was seen as a factor that affected e-satisfaction.

### 2.1.3 Clear shopping process

To set up and protect e-commerce, store owners and companies must understand how online shopping works. Muylle and Basu (2004) looked at how companies in different industries use their websites to support online processes. The research results show that a clear shopping process is very important for e-commerce to succeed. When you shop, you try out products, learn about them, look for information, buy things, and give them away. There are a lot of different parts to shopping. The shopping process is broken up into different steps at different times, places, and stages (Cao, 2012). Kim and Forsythe (2008) looked into how virtual assembly in e-commerce reduces product risk and makes shopping more fun. They also looked at changes in e-shopping and how people feel about technology. The result shows that customers will trust e-commerce more if the shopping process is simple, clear, and easy to understand. A clear shopping process makes it easier for customers to decide what to buy when they are shopping online. Bechwati and Xia (2003) looked at what it takes for e-commerce to influence a customer's decision to shop online and what the customer thinks about the shopping process. Their research showed that knowing how shopping works helps people make decisions, gain trust, and buy again. In this study, a clear shopping process is the most important thing that affects a client's trust in e-commerce.

### 2.1.4 Reliable payment system

According to Kousaridas et al. (2008), the study of e-commerce is based on the electronic payment system (EPS), which is one of the most important things for the success of e-commerce. EPS is different from traditional payment methods in that it is easy to pay, private, reliable, safe, scalable, anonymous, and can be used by anyone (Carbonell et al., 2009; SAFA et al., 2014). Before a transaction takes place in e-commerce, there is no contact with the customer or interaction with other people. People think about security in EPS when human networks or the media pose a threat to e-commerce (Carbonell et al., 2009). In general, security is a group of computer programs, programs, and mechanisms that are used to make sure the process works and that the source of information is correct (Kim et al., 2010). Even though a lot is written about EPS and how service providers, merchants, and customers feel about trust, secure payment systems have not been fully studied or solved in this field (Dai & Grundy, 2007). In this study, a reliable payment system was seen as one of the most important things that lead to trust and loyalty from customers.

### 2.1.5 E-satisfaction

In the past few years, e-commerce companies and academics have paid much attention to how happy customers are. Customers who are happy with a company's service are more likely to buy from them again (Shankar et al., 2003). Most studies in this area show that satisfaction is the main thing that makes people loyal. Happy customers will buy again and bring long-term company profits (AUH & Johnson, 2005;

Tsai et al., 2007). E-commerce companies must keep and gain loyal customers, and making plans to improve customer satisfaction is necessary if they want to stay in business in the Internet's competitive environment. Experts from different fields look at e-satisfaction from different points of view. Folstad et al. (2010) ask customers about their satisfaction in specific and general situations. Their survey results show that customer satisfaction is affected by how useful and easy to use a product is seen to be. In addition, customer satisfaction affects customer loyalty in e-commerce (Bridges & Florsheim, 2008).

According to Bridges and Florsheim (2008), Overby and Lee (2006), and van Schaik and Ling (2008), client contact and e-commerce system satisfaction is largely based on how much the client enjoys the process. Self-indulgence is also thought to affect e-loyalty and e-satisfaction in some way. Researchers often mention customer perception, information quality, and systems (usefulness and ease of use) as things that make customers happy (Lin et al., 2011; Stefani & Xenos, 2011). People have looked at happiness from different angles in different studies. Satisfaction is a feeling that stays the same because of economic conditions, like a good profit margin or many sales.

Non-financial gratification can also come from things that have nothing to do with psychology, like how easy it is to get along with others or how well partners keep their promises. Casalo et al. (2008) found that both economic and non-economic satisfaction affect customer loyalty in e-commerce.

### 2.1.6 E-trust

SAFA and Ismail (2013) say that trust can be used in any business activity to reach certain goals. Trust is a collective and institutional trait that plays a key role. In business deals, trust also encourages partners to work together. People, companies, or both people and companies can do business with each other. Experts looked at trust from many different angles, such as technology, organization and management, behavior and psychology, economics, and game theory (KIRs & Bagchi, 2012). KOH and Sundar (2010) say that trust is one of the most powerful tools in marketing. In e-commerce, trust is just as important as it is in any other business transaction involving money (KOH & Sundar, 2010). When compared to traditional commerce, trust in e-commerce is based on how much the customer trusts the process. E-trust is seen as the most important thing for e-commerce to work, and it affects how loyal customers are. Iglesias et al. (2013) surveyed the barriers to e-commerce, focusing on non-shopper behavior. The results of their research show that problems with trust and safety are the biggest reasons why people do not use e-commerce. Beldad et al. (2010) looked into how different things affect e-trust in both business and non-business online transactions. Their research shows that trust is very important when companies use the Internet to sell their services or goods. If people do not trust companies, they might not be able to do business with them online.

### 2.1.7 E-loyalty

Based on the Pareto rule, Bhaskar and Kumar (2016) show that 20% of customers bring in 80% of profits. Therefore, this 20% of customers are loyal customers or the company's core customers. Several studies have shown that loyal customers are essential to long-term success and growth. Keller (1993) said that customer loyalty is when a customer buys the same product over and over again because they like it. Shanker et al. (2003) say that buying from the same store more than once should not be seen as loyalty. Repurchase does not have anything to do with loyalty. It is just a sign of the decision-making process. True, loyal customers do not just choose this business because they like it and are drawn to it. They should care about the company and feel like they need it. Loyal customers will bring in a lot of money, but they will not take up much of a business's time or energy. Many loyal customers are willing to overlook a business's mistakes, are less price sensitive, and will recommend products to others, according to the study by Reichheld et al. (2000). According to Srinivasan et al. (2002)'s definition of e-loyalty, use current general e-loyalty concepts: customers repeatedly visit websites out of preferences and commitments, pay attention to product information, repeatedly buy products or services through the website, have a high level of trust and loyalty for them, and consciously protect, increase, and improve the benefits or image of websites.

## 2.2 Related literature review

### 2.2.1 Convenience, enjoyment, and e-satisfaction

Online shopping saves time and effort because it is easy to find merchants, find products, and source products. Clients do not have to leave their homes or go anywhere to look for and buy things online. Menon and Kahn (2002) say that they could also look at items by online store or category. Because online shopping saves time and lets you look around, people are likely to think of it as more convenient and satisfying (Menon & Kahn, 2002). Colwell et al. (2008) found that, when it came to the Internet in China, all five conveniences had an effect on satisfaction. Chang et al. (2010) said that when it comes to fast food in Taiwan, convenience affects both satisfaction and loyalty. The research results also show that how easy it is to shop online will affect how happy Chinese shoppers are. Studies done so far have shown that convenience and e-satisfaction go together well (Szymanski & Hise, 2000; Jun & Chung, 2006). Perceived enjoyment has a big direct effect on satisfaction good way (Calli et al., 2013). E-satisfaction has a big direct effect on how much fun you have (Ramayah & Lee, 2012). For an online shopper, e-satisfaction depends on the site and the products it sells. So, Pham and Ahammad (2017) suggested that online shoppers' e-satisfaction can be measured by how well they make decisions, how much they like shopping, how happy they are with online transaction services, how much they like the website, how well it works, and what products it sells. How happy online shoppers are will depend on how much they like shopping online (Ting et al., 2016).

*H1: Convenience (H1a) and enjoyment (H1b) have a significant impact on e-satisfaction concerning e-loyalty among e-Commerce in Chinese people's perspective.*

**2.2.2 Clear shopping process, reliable payment system, and e-trust**

In online payment systems, trust is a big part of being happy and getting the results you want (Chen & Dhillon, 2003). Customers tend to trust a business more when it has a payment system that works well (SAFA, 2016). Customers will trust e-commerce more if the shopping process is easy to understand and clear. A clear shopping process makes it easier for customers to decide what to buy on the Internet (Papadopoulou, 2007).

*H2: Clear shopping process (H2a) and reliable payment system (H2b) have a significant impact on e-trust concerning e-loyalty among e-Commerce in Chinese people's perspective.*

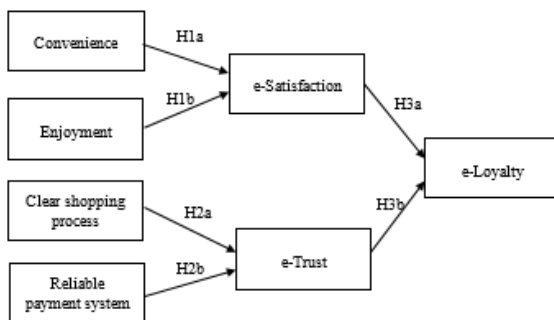
**2.2.3 e-satisfaction, e-trust, and e-loyalty**

Anderson and Srinivasan (2003) say that e-satisfaction is how happy a customer was with their last purchase from a certain e-commerce company. Researchers Chang and Wang (2017) found that website design, reliability, shopping value, and customer service are all important for e-satisfaction. Kim and Lennon (2010) found that electronic satisfaction and electronic loyalty are linked in a good way. Kim et al. (2009) found that privacy is what drives e-trust, which in turn leads to e-satisfaction among customers. Ribbink et al. (2004) also found that privacy has a big effect on customer trust in the online world, and can even help build long-term relationships with customers (Alshurideh et al., 2016).

*H3: E-satisfaction (H3a) and e-trust (H3b) have a significant impact on e-loyalty among e-Commerce in Chinese people's perspective.*

**2.3 Conceptual framework**

Previous research, theoretical concepts, and testing literature were used to build the conceptual framework. The study revealed the impact of independent variables such as e-satisfaction and e-trust, which had an impact on dependent variables such as e-loyalty. Figure 2.4 shows a conceptual framework for determinants of customer e-Loyalty among e-commerce in Chinese people's perspective.



**Figure 1:** Determinants of Customer e-Loyalty among e-Commerce in Chinese people's perspective: A Case Study Beijing, China

**Source.** Constructed by author.

**3. RESEARCH METHODOLOGY**

**3.1 Research Design**

The goal of this study is to look at how e-trust, e-satisfaction, and e-loyalty affect customer loyalty in e-commerce from the point of view of Chinese people. This study will also look at how much each variable affects the factors that determine customer e-loyalty in e-commerce. A conceptual framework has been made based on a review of the literature. The information came from the online customers of Chinese businesses. After figuring out what the data meant, confirmatory factor analysis was done. To test the hypothesis, a structural equation model is used. The JAMOVI is used for this goal. In the next section, the researcher will go into more detail.

**3.2 Sampling Plan**

**3.2.1 Target Population**

In this study, the people who are most important are those who live in Beijing and have shopped online at least a few times. Statista.com says that there are 21.89 million people living in Beijing in 2021, making it the city with the most people in China. Moreover, Beijing is the country's capital city, which means it is the country's population, political, and financial center. No other city can compare to Beijing in these ways.

**Source:** From 2011 to 2021, the number of people living in the administrative area of Beijing, China (statista.com)

**3.2.2 Sample Size**

The table of Krejcie and Morgan (1970) is used to estimate the sample size for a small population. Based on the estimated population of Beijing, which is 21.89 million people, the sample size for this study is 384 people who are Chinese and live in Beijing and have used e-commerce at least once.

Krejcie and Morgan's (1970) sample size table says that 384 people are the right number for a sample of a million people. As the number of people grows, the number of samples keeps going down. The researcher thinks that 384 samples are enough for 21.89 million people.

**3.2.3 Sampling procedure**

Due to the fact that the respondents will be selected in advance in accordance with the research goal, the researcher in this investigation makes use of a non-probabilistic sampling approach, as well as convenient sampling and snowball sampling, in order to collect information. Due to the limited amount of time available and the necessity of maintaining social distance, for the time being, the researchers in this study opted to utilize a non-probabilistic sampling technique. Since data can be easily collected using this approach, it is the way that should be used because it is the most appropriate method.

**3.3 Research Instrument**

**3.3.1 Questionnaire Design**

In this study, questionnaires were used as a method of research to investigate the relevant components and the interactions that existed between the variables. The researcher has made the questionnaire available to the qualified samples using an online platform. The questionnaire is broken down into three distinct sections. The first part of the survey is made

up of screening questions, and the only people who are eligible to respond are those who live in Beijing and have made purchases online. The second part of the survey consists of questions about the respondents' demographic information. The questions for the dependent and independent variables make up the final section of the questionnaire, which contains a total of 21 scale items.

**3.4 Validity**

**3.4.1 Content validity with the index of item-objective congruence**

The researchers utilize the Item Objective Congruence (IOC) Index to evaluate the item quality of each question included in the questionnaire. For the researchers to calculate the score for content validity, they solicited feedback from three industry professionals. The value of the IOC was determined to be 0.67. The fact that the result is greater than 0.5 indicates that all questions can be safely distributed among the responders.

**3.4.2 Cronbach's Alpha Reliability with pilot test**

The investigators came to the conclusion that the best way to determine whether or not the questionnaire variables were accurate was to do a preliminary test with a sample size of fifty persons. Cronbach's alpha is a method of assessing consistency that is used to evaluate the dependability of any particular measurement variable. This method was developed by Cronbach. According to Cronbach (1951), the pilot test search method and the Cronbach Alpha (CA) as the common assumption are the two most frequent ways to test the dependability of a given data set. Bardhoshi and Erford (2017) determined the overall project using the Likert scale with five points of differentiation. Before distributing the questionnaire

to the people who are the focus of this investigation, the Cronbach Alpha reliability test is the one that is considered to be the most reliable. Detailed below lays out the various coefficients and their associated strengths for your perusal.

**Cronbach's Alpha and Internal Consistency's Rules**

| Alpha Coefficient Range | Strength of Association |
|-------------------------|-------------------------|
| $\alpha > 0.9$          | Excellent               |
| $0.8 < \alpha < 0.9$    | Good                    |
| $0.7 < \alpha < 0.8$    | Acceptable              |
| $0.6 < \alpha < 0.7$    | Questionable            |
| $0.5 < \alpha < 0.6$    | Poor                    |
| $\alpha < 0.5$          | Unacceptable            |

A pilot test with 30 participants was used to gather Cronbach's Alpha values for the independent variables of convenience, enjoyment, a clear purchasing process, a dependable payment system, e-satisfaction, e-trust, and e-loyalty. The findings indicated that there are seven distinct aspects that make up the overall variables of the elements that influence e-loyalty with regard to e-commerce services. The results showed that Cronbach's alpha for the convenience of three items is  $\alpha=.917$ , Cronbach's alpha for the enjoyment of three items is  $\alpha=.853$ , Cronbach's alpha for a clear shopping process is  $\alpha=.846$ , the Cronbach's alpha for a reliable payment system is  $\alpha=.758$ , Cronbach's alpha for e-trust is  $\alpha=.889$ , Cronbach's alpha for e-satisfaction (Per shown in Table 1). The findings provided evidence in support of the constructs' internal consistency, demonstrating that the questionnaire is trustworthy enough to be used again, in accordance with the general rule of thumb that the value must be at least 0.60 in order to be regarded as acceptable.

**Table 1:** The Value of Reliability Analysis of Each Item and Variable in this Study (n=30)

| Item No.                       | Measurement Items   | Cronbach's Alpha | Strength of Association |
|--------------------------------|---|------------------|-------------------------|
| <b>Convenience</b>             |   | <b>.917</b>      | <b>Excellent</b>        |
| CV1                            | I am satisfied with buying with easy way.   | .907             | Excellent               |
| CV2                            | I am satisfied with a user-friendly and simple website.                                   | .811             | Good                    |
| CV3                            | I am satisfied with the convenience of transaction and accessibility of information.      | .915             | Excellent               |
| <b>Enjoyment</b>               |   | <b>.853</b>      | <b>Good</b>             |
| EJ1                            | I enjoy using e-commerce  | .932             | Excellent               |
| EJ2                            | When I buy over the Internet, I like to organize information.                             | .704             | Acceptable              |
| EJ3                            | I enjoy shopping when I buy from sites with high system quality.                          | .712             | Acceptable              |
| <b>Clear shopping process</b>  |   | <b>.846</b>      | <b>Good</b>             |
| CSP1                           | When I understand the steps of shopping online, I can easily make a decision to purchase. | .746             | Acceptable              |
| CSP2                           | Tracking the shopping journey through the website makes me repurchase.                    | .817             | Good                    |
| CPS3                           | A simple and fast ordering system makes me repurchase.                                    | .801             | Good                    |
| <b>Reliable payment system</b> |   | <b>.758</b>      | <b>Acceptable</b>       |

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|                       |   |             |              |
|-----------------------|---|-------------|--------------|
| RPS1                  | Reliable payment system makes me trust this site.                               | .647        | Questionable |
| RPS2                  | I trust this site because I know my bank account is safe.                       | .747        | Acceptable   |
| RPS3                  | I trust this site because I am sure that no one can change my transaction data. | .619        | Questionable |
| <b>E-satisfaction</b> |   | <b>.808</b> | <b>Good</b>  |
| ES1                   | My decision to buy from this site was the right choice                          | .846        | Good         |
| ES2                   | In the future, I will buy what I need from this site.                           | .669        | Questionable |
| ES3                   | If I buy again, I will be happy with my purchase.                               | .701        | Acceptable   |
| <b>E-trust</b>        |   | <b>.889</b> | <b>Good</b>  |
| ET1                   | I trust this website in terms of my privacy.                                    | .915        | Excellent    |
| ET2                   | I am confident that no one will misuse my information in their systems.         | .817        | Good         |
| ET3                   | This e-commerce company has a secure path for data transfer.                    | .780        | Acceptable   |
| <b>E-loyalty</b>      |   | <b>.874</b> | <b>Good</b>  |
| EL1                   | This website is my go-to for online purchases.                                  | .863        | Good         |
| EL2                   | I recommend this site to my friends to buy.                                     | .816        | Good         |
| EL3                   | I will continue to try to make purchases from this website.                     | .779        | Acceptable   |

#### 4. DATA ANALYSIS AND DISCUSSION OF RESULTS

##### 4.1 Reliability Testing

The researcher wants to re-examine the questionnaire for any inconsistencies or errors in variable for all 385 respondents. Cronbach’s Alpha test of Reliability is used to assess and analysis 385 respondent reliability with a questionnaire as shown in Table 3.

**Table 3:** The value of Reliability Analysis of Each Item and Variable in this Study (n=385)

| Measurement Items       | Cronbach’s Alpha |
|-------------------------|------------------|
| Convenience             | 0.914            |
| Enjoyment               | 0.857            |
| Clear shopping process  | 0.843            |
| Reliable payment system | 0.76             |
| E-satisfaction          | 0.808            |
| E-trust                 | 0.887            |
| E-loyalty               | 0.874            |

Table 3 shows how the researchers use Cronbach’s Alpha to determine how closely related a group of items using the JAMOVI program to measure the scale of reliability. The result showed the overall variables of the factors that determine Customer e-Loyalty among e-Commerce consist of seven items. The result shows that all factors are valid and reliable because the value is greater than 0.7. The highest reliability is the convenience with 3 items of  $\alpha=0.914$ ,

followed by E-trust with 3 items at  $\alpha=0.887$ , E-loyalty with 3 items at  $\alpha=0.874$ , and enjoyment with 3 items is  $\alpha=0.857$ , the 3 items of clear shopping process with an overall score of  $\alpha=0.843$ , E-satisfaction of 3 items is  $\alpha=0.808$ , and 3 items of the reliable payment system is  $\alpha=0.76$ .

##### 4.2 Descriptive Analysis of Demographic Data

Using the JAMOVI program’s descriptive analytic capabilities, the researchers analyzed the demographic data of respondents who use e-commerce services in Beijing. The researcher gathered demographic data such as gender, age, channel, average monthly income, number of times people made purchases online, and the reasons they used e-commerce. In order to provide an explanation of the respondent’s characteristics, the researcher will use descriptive analysis.

The following is a breakdown of the frequency distribution and percentages based on the total sample size of 385 respondents, as shown in Table 4:

**Gender:** Male respondents made up 45.1% of the overall number of respondents (385), while female respondents made up 54.9% of the total number of respondents (385). The number of male respondents comes in at 173, while the number of female respondents clocks in at 211. **Age:** The majority of the respondents in this study are between the ages of 20 and 29, making up 34.6% of the total, followed by 106 respondents who are over the age of 50, making up 27.6% of the total, followed by 79 respondents who are between the ages of 40 and 49, making up 20.6% of the total, and the age group between 30-39 years old has the lowest percentage of respondents, making up 17.2% of the total with 66 respondents. **Channel:** 158 out of 385 respondents, representing 41.1%, learned about e-commerce through social



media. This was followed by 79 respondents who learned about e-commerce through the recommendation of a friend, representing 20.6%. The same number of people, 79, learn about e-commerce through the WeChat group link, which accounts for 20.6% of the total, and 68 people learn about e-commerce through TV, and Internet Marketing Advertising, which accounts for 17.7% of the total. **Current income:** Of the 385 respondents, 144 have a monthly income of more than 10,000 Yuan, accounting for 37.5% of the total, 121 have a monthly income between 5000 and 10,000 Yuan, accounting for 31.5% of the total, 81 have a monthly income of between 3,000 and 5,000 Yuan, accounting for 21.1% of the total, and 38 have a monthly income of less than 3,000 Yuan, accounting for 9.9% of the total. The respondents with the lowest incomes are. **Purchasing Frequency:** Among all 385 respondents, 148 respondents, which accounts for 38.5%, use an e-commerce service to buy products more than once per

week. This is followed by 94 respondents, which accounts for 24.5%, who use an e-commerce service more than three times per season, and 76 respondents, which accounts for 19.8%, who use an e-commerce service less than once per season. The percentage of respondents who engage in online shopping, which stands at 17.2% and accounts for 66, is the lowest. **Reasons for using e-Commerce:** among the 385 respondents, 118 of them (30.7%) believe that there are many product categories available to fulfill their needs. This is followed by 94 respondents who believe that there are many product categories available to fit their needs. 24.5% of respondents considered that e-commerce services offered exceptional product quality at a cost-effective price. 24.5% of respondents thought that e-commerce services offered ideal after-sales service. 20.3% of respondents thought that e-commerce services offered perfect before-sales service.

**Table 4.** Demographic factors using the frequency distribution and percentage

| Demographic Factors (n = 385)       | Frequency  | Percent    |
|-------------------------------------|------------|------------|
| <b>Gender</b>                       |            |            |
| Male                                | 173        | 45.1       |
| Female                              | 211        | 54.9       |
| <b>Total</b>                        | <b>385</b> | <b>100</b> |
| <b>Age</b>                          |            |            |
| 20-29 years old                     | 133        | 34.6       |
| 30 – 39 years old                   | 66         | 17.2       |
| 40– 49 years old                    | 79         | 20.6       |
| Over 50 years old                   | 106        | 27.6       |
| <b>Total</b>                        | <b>385</b> | <b>100</b> |
| <b>Channel</b>                      |            |            |
| Friend recommended                  | 79         | 20.6       |
| Wechat group link                   | 79         | 20.6       |
| Social media                        | 158        | 41.1       |
| TV, Internet Marketing Advertising  | 68         | 17.7       |
| <b>Total</b>                        | <b>385</b> | <b>100</b> |
| <b>Current income per month</b>     |            |            |
| Lower than 3000 Yuan                | 38         | 9.9        |
| 3000 – 5000 Yuan                    | 81         | 21.1       |
| 5001 – 10000 Yuan                   | 121        | 31.5       |
| More than 10000 Yuan                | 144        | 37.5       |
| <b>Total</b>                        | <b>385</b> | <b>100</b> |
| <b>Purchasing Frequency</b>         |            |            |
| Less than 1 time per year           | 66         | 17.2       |
| Less than 1 time per season         | 76         | 19.8       |
| More than 3 times per season        | 94         | 24.5       |
| More than 1 time per week           | 148        | 38.5       |
| <b>Total</b>                        | <b>385</b> | <b>100</b> |
| <b>Reasons for using e-Commerce</b> |            |            |





|   |            |            |
|---|------------|------------|
| Cheap and easy to buy                               | 94         | 24.5       |
| There are many product categories to meet the needs | 118        | 30.7       |
| Excellence product quality, cost-effective          | 94         | 24.5       |
| Perfect after-sales service                         | 78         | 20.3       |
| <b>Total</b>  | <b>385</b> | <b>100</b> |

**4.3 Mean and Standard Deviation for Descriptive Analysis**

In this part, a summary of each group's Mean and Standard Deviation includes E-satisfaction, E-trust, and E-loyalty ratings, as well as convenience, enjoyment, clear shopping processes, dependable payment systems, and E-loyalty ratings. The following standards for judging the significance of the mean scores were derived from Moidunny (2009) and are described in more detail below:

**The criteria of the interpretation of mean scores:**

| Mean score  | Interpretation |
|-------------|----------------|
| 4.21 – 5.00 | Very high      |
| 3.21 – 4.20 | High           |
| 2.61 – 3.20 | Medium         |
| 1.81 – 2.60 | Low            |
| 1.00 – 1.80 | Very low       |

**4.3.1 Mean and standard deviation of convenience**

According to Table 5, the statement "I am satisfied with buying with the easy way" had a mean value of 3.9, which represented the maximum level of convenience. On the other hand, "I am satisfied with the convenience of transaction and accessibility of information," which has a mean value of 3.66, was the statement that had the lowest mean. In addition, the statement "I am delighted with the convenience of transaction and accessibility of information" had a standard deviation of 0.792, making it the statement with the most variability. On the other hand, the statement that received the lowest score was "I am satisfied with the convenience of transaction and accessibility of information," which received 0.604 out of a possible 1.00.

**Table 5:** The result of Mean and Standard Deviation of E-service quality

|  | Mean | Std. Deviation | Interpretation |
|--|------|----------------|----------------|
| <b>CV1:</b> I am satisfied with buying with easy way.  | 3.90 | 0.604          | High           |
| <b>CV2:</b> I am satisfied with a user friendly and simple website.                              | 3.73 | 0.73           | High           |
| <b>CV3:</b> I am satisfied with the convenience of transaction and accessibility of information. | 3.66 | 0.792          | High           |

**4.3.2 Mean and standard deviation of enjoyment**

According to Table 6, the statement "I enjoy shopping when I buy from sites with high system quality" had the highest mean level of enjoyment. This statement received a score of 4.18 out of 5. The statement that "When I buy over the Internet, I want to organize information" had the most number of votes and had the lowest mean score of 3.95. The items with the highest standard deviation were "When I buy over the Internet, I like to organize information" and "I enjoy shopping when I buy from sites with high system quality," both of which equaled 0.855. These two statements were tied for the highest score. On the other hand, the statement that received the lowest score was "I enjoy utilizing e-commerce," which received a score of 0.817.

**Table 6:** The result of Mean and Standard Deviation of enjoyment

|  | Mean | Std. Deviation | Interpretation |
|--|------|----------------|----------------|
| <b>EJ1:</b> I enjoy using e-commerce   | 4.03 | 0.817          | High           |
| <b>EJ2:</b> When I buy over the Internet, I like to organize information.    | 3.95 | 0.855          | High           |
| <b>EJ3:</b> I enjoy shopping when I buy from sites with high system quality. | 4.18 | 0.855          | High           |

**4.3.3 Mean and standard deviation of clear shopping process**

According to Table 7, the statement "A simple and fast ordering system makes me repurchase" had a mean score of 4.04, making it the clear shopping procedure statement with the highest mean score. However, "An easy and fast ordering system makes me repurchase," which has a mean of 3.97, was the statement with the lowest average. In addition, the statement "A straightforward and fast ordering system makes me repurchase" had the largest standard deviation of any of the questions, coming in at 0.843. On the other hand, the response that received the lowest score was "A simple and fast ordering system makes me repurchase," which received a score of 0.61.

**Table 7:** The result of Mean and Standard Deviation of clear shopping process

|  | Mean | Std. Deviation | Interpretation |
|--|------|----------------|----------------|
|--|------|----------------|----------------|



|  |      |       |      |
|--|------|-------|------|
| <b>CSP1:</b> When I understand the steps of shopping online, I can easily make a decision to purchase. | 3.97 | 0.61  | High |
| <b>CSP2:</b> Tracking the shopping journey through the website makes me repurchase.                    | 4.01 | 0.744 | High |
| <b>CSP3:</b> A simple and fast ordering system makes me repurchase.                                    | 4.04 | 0.843 | High |

**4.3.4 Mean and standard deviation of reliable payment system**

According to Table 8, the statement "I trust this site since I know my bank account is protected" received the highest mean score for indicating a reliable payment system. This statement received a score of 4.21. On the other hand, the statement "Reliable payment mechanism makes me trust this site" had the highest mean score of 3.93. In addition, the statement "Reliable payment mechanism makes me trust this site" had a standard deviation of 0.783, which was the highest of any of the questions. The statement that "I trust this site since I know my bank account is protected" has a standard deviation of 0.606, making it the statement with the lowest standard deviation.

**Table 8:** The result of Mean and Standard Deviation of reliable payment system

|  | Mean | Std. Deviation | Interpretation |
|--|------|----------------|----------------|
| <b>RPS1:</b> Reliable payment system makes me trust this site.                               | 3.93 | 0.783          | High           |
| <b>RPS2:</b> I trust this site because I know my bank account is safe.                       | 4.21 | 0.606          | Very high      |
| <b>RPS3:</b> I trust this site because I am sure that no one can change my transaction data. | 3.94 | 0.643          | High           |

**4.3.5 Mean and standard deviation of E-satisfaction**

According to Table 9, the statement "If I buy again, I will be delighted with my purchase" had the greatest overall mean of customer satisfaction, which was equivalent to 3.9. On the other hand, "My decision to buy from this site was the appropriate choice," which has a mean of 3.71, was the statement with the lowest mean score. In addition, the statement "My decision to buy from this site was the proper one" had a standard deviation of 0.789, making it the statement with the highest standard deviation. On the other hand, the statement that received the lowest score was "In the future, I will buy what I need from this site," which received a score of 0.627.

**Table 9:** The result of Mean and Standard Deviation of E-satisfaction

|   | Mean | Std. Deviation | Interpretation |
|---|------|----------------|----------------|
| <b>ES1:</b> My decision to buy from this site was the right choice. | 3.71 | 0.789          | High           |
| <b>ES2:</b> In the future, I will buy what I need from this site.   | 3.86 | 0.627          | High           |
| <b>ES3:</b> If I buy again, I will be happy with my purchase.       | 3.90 | 0.706          | High           |

**4.3.6 Mean and standard deviation of E-trust**

According to Table 10, the statement "I trust this website in terms of my privacy" had the highest mean score of E-trust, which was equal to 4.08 points. On the other hand, "This e-commerce corporation has a secure method for data transfer" had the lowest mean score of 3.73, making it the lowest-scoring statement. In addition, the statement "This e-commerce corporation has a secure method for data transfer" has a standard deviation of 0.73, making it the statement with the highest standard deviation. In contrast, the statement that scored the lowest was "I am convinced that no one would misuse my information in their system," which received a score of 0.604 out of a possible 1.00.

**Table 10:** The result of Mean and Standard Deviation of E-trust

|   | Mean | Std. Deviation | Interpretation |
|---|------|----------------|----------------|
| <b>ET1:</b> I trust this website in terms of my privacy.                            | 4.08 | 0.636          | High           |
| <b>ET2:</b> I am confident that no one will misuse my information in their systems. | 3.9  | 0.604          | High           |
| <b>ET3:</b> This e-commerce company has a secure path for data transfer.            | 3.73 | 0.73           | High           |

**4.3.7 Mean and standard deviation of E-loyalty**

According to Table 11, the statement "I will continue to try to make purchases from this website" had the greatest mean of customer loyalty. This statement received a score of 3.8. On the other hand, the statements "This website is my go-to for online shopping" and "I recommend this site to my friends to buy" both had a mean value of 3.66, making them the statements with the lowest average. In addition, the statement "I will continue to try to make purchases from this website" had the largest standard deviation of any of the questions, coming in at 0.914. However, "I recommend this site to my



friends to buy," which had a standard deviation of 0.709, had the lowest value of all the questions.

**Table 11:** The result of Mean and Standard Deviation of E-loyalty

|   | Mean | Std. Deviation | Interpretation |
|---|------|----------------|----------------|
| <b>EL1:</b> This website is my go-to for online purchases.              | 3.66 | 0.792          | High           |
| <b>EL2:</b> I recommend this site to my friends to buy.                 | 3.66 | 0.709          | High           |
| <b>EL3:</b> I will continue to try to make purchases from this website. | 3.8  | 0.914          | High           |

**4.4 Hypothesis Testing Results**

The researcher conducted her investigation into e-commerce using multiple linear regression as her method of statistical analysis. She wanted to determine the number of different factors that might have an effect on online business. The R-square value, which represents the proportion of variance in the dependent variable that is based on the independent variable, can be used to study a variable when multiple linear regression is utilized. This value can be used to examine a variable. In order to examine the level of many elements that can affect customer loyalty, the researcher utilized multiple linear regression as a statistical analytic tool. When using multiple linear regression, it is necessary to compute multicollinearity in order to determine which variables can be eliminated from the analysis. Furthermore, according to Hair et al. (1995), when the link between the independent variables is moderate, the value of the variance inflation factor (VIF) can be as high as "10," which is acceptable and is categorized as moderate multicollinearity. In

addition, the value of the variable's R-square ( $R^2$ ) correlation coefficient, which reveals the proportion of the dependent variable's variance that can be attributed to the independent variable, can be utilized to explain the variable.

**4.4.1 Result of Multiple Linear Regression of H1**

**H1a:** Convenience has a significant impact on e-satisfaction concerning e-loyalty among e-Commerce in Chinese people perspective.

**H1b:** Enjoyment has a significant impact on e-satisfaction concerning e-loyalty among e-Commerce in Chinese people perspective.

The results of a multiple linear regression, which can be shown in Table 12, were analyzed to determine whether or not Enjoyment (H1b) and Convenience (H1a) had a substantial impact on e-satisfaction in relation to e-loyalty in the context of e-Commerce from the perspective of the Chinese people. According to the findings, the significance level of both the convenience hypothesis (H1a) and the enjoyment hypothesis (H1b) was lower than 0.05. Therefore, we cannot accept the null hypothesis. In addition, the value of R-square was 0.640 at a confidence level of 95%, which indicates that the independent variables (Convenience and Enjoyment) can justify the dependent variable (E-satisfaction) by approximately 64.0%, and p 0.05 reflects that there are 64.0% of variances in customer attitude. This means that the independent variables can justify the dependent variable by approximately 64.0%. In addition, the results of each individual predictor showed that Enjoyment ( $B=0.788$ ,  $p<0.05$ ) and Convenience ( $B=0.774$ ,  $P<0.05$ ) were positively significant to E-satisfaction. The variance inflation factors for the three predictors were examined, and the results showed that the VIF value of Convenience was 4.253, and the VIF value of Enjoyment was 4.551. Since the VIF value was less than 10, there was no problem with multicollinearity among these independent variables.

**Table 12:** Multiple Linear Regression Analysis Summary for Hypotheses 1a and 1b

| Variables   | B     | SE B  | $\beta$ | t      | Sig.    | VIF   |
|-------------|-------|-------|---------|--------|---------|-------|
| Convenience | 0.774 | 0.083 | 0.593   | 9.308  | 0.000** | 4.253 |
| Enjoyment   | 0.788 | 0.061 | 0.853   | 12.950 | 0.000** | 4.551 |

Note.  $R^2 = 0.640$ , Adjusted  $R^2 = 0.635$ , \* $p < 0.05$  Dependent Variable = E-satisfaction

**4.4.2 Results of Multiple Linear Regression of H2**

**H2a:** Clear shopping process has a significant impact on e-trust concerning e-loyalty among e-Commerce in Chinese people perspective.

**H2b:** Reliable payment system has a significant impact on e-trust concerning e-loyalty among e-Commerce in Chinese people perspective.

The results of a multiple linear regression, which can be seen in Table 13, were used to determine whether or not a clear shopping process (H2a) and a reliable payment system (H2b) have a significant impact on e-satisfaction in relation to e-loyalty in the context of e-Commerce from the perspective of the Chinese people. According to the findings, the significance level of both the Clear shopping procedure (H2a) and the Reliable payment system (H2b) hypotheses was lower than 0.05. Therefore, we cannot accept the null hypothesis. In addition, the value of R-square was 0.266 at the 95% confidence level, which indicates that the independent variables (Clear shopping process and Reliable payment system) can justify the dependent variable (E-trust) by approximately 26.6%, and p-values less than 0.05 indicate that there are approximately 26.6% of variances in customer attitude. In addition, the results of each individual predictor showed that the Clear shopping procedure ( $B = -0.160$ ,  $p < 0.05$ ) and the Reliable payment method ( $B = -0.260$ ,  $p$



0.05) were negatively significant to E-satisfaction. The value of the variance inflation factor (VIF) for the Clear shopping process was found to be 2.645, and the value of the VIF for the Reliable payment system was found to be 1.820. As a result, there was no problem with multicollinearity among these independent variables because the VIF value was less than 10.

**Table 13:** Multiple Linear Regression Analysis Summary for Hypotheses 2a and 2b

| Variables               | B      | SE B  | $\beta$ | t      | Sig.    | VIF   |
|-------------------------|--------|-------|---------|--------|---------|-------|
| Clear shopping process  | -0.160 | 0.075 | -0.154  | -2.146 | 0.032*  | 2.645 |
| Reliable payment system | -0.260 | 0.059 | -0.263  | -4.421 | 0.000** | 1.820 |

Note.  $R^2 = 0.266$ , Adjusted  $R^2 = 0.254$ , \* $p < 0.05$  Dependent Variable = E-trust

**4.4.3 Results of Multiple Linear Regression of H3**

**H3a:** E-satisfaction has a significant impact on e-loyalty among e-Commerce in Chinese people perspective.

**H3b:** E-trust has a significant impact on e-loyalty among e-Commerce in Chinese people perspective.

The results of a multiple linear regression, which can be seen in Table 14, were used to determine whether or not e-satisfaction (H3a) and e-trust (H2b) had a substantial impact on e-satisfaction in regards to e-loyalty among e-Commerce from the perspective of the Chinese people. According to the findings, the level of significance for the hypotheses "Clear shopping process" (H2a) and "Reliable payment system" (H2b) was lower than 0.05. Therefore, we cannot accept the null hypothesis. In addition, the value of R-square was 0.772 at a confidence level of 95%, which indicates that the independent variables (E-satisfaction and E-trust) can justify the dependent variable (E-loyalty) by approximately 77.2%. Since  $p < 0.05$  indicates that there are 77.2% of variances in customer attitude, this finding is significant. In addition, the results of each individual predictor showed that e-satisfaction ( $B=0.668$ ,  $p < 0.05$ ) and e-trust ( $B=-0.039$ ,  $p < 0.05$ ) were significantly unfavorable to E-loyalty. The results of an examination of the variance inflation factors for the three predictors show that the VIF value of E-satisfaction is 5.070 and the VIF value of E-trust is 3.137; consequently, there was no problem with multicollinearity among these independent variables because the VIF value was less than 10.

**Table 14:** Multiple Linear Regression Analysis Summary for Hypotheses 3a and 3b

| Variables      | B      | SE B  | $\beta$ | t      | Sig.    | VIF   |
|----------------|--------|-------|---------|--------|---------|-------|
| E-satisfaction | 0.668  | 0.060 | 0.615   | 11.112 | 0.000** | 5.070 |
| E-trust        | -0.039 | 0.055 | -0.031  | -0.714 | 0.476   | 3.137 |

Note.  $R^2 = 0.772$ , Adjusted  $R^2 = 0.768$ , \* $p < 0.05$  Dependent Variable = E-loyalty



**Figure 2:** The result of structural model

**5. CONCLUSION AND RECOMMENDATIONS**

**5.1 Summary of the study**

The purpose of this study's summary is to focus on the research objectives and research questions, which are centered on precisely analyzing the links between the elements that affect customer purchase intention toward green cosmetics products in Chengdu, China. The following five research questions served as the basis for the investigation:

1. From the standpoint of the Chinese people, does the degree to which ease of use and enjoyment factor into e-satisfaction and e-loyalty in the context of e-Commerce?
2. From the perspective of the Chinese people, do a streamlined shopping experience and a secure method of payment have a major impact on e-trust in relation to e-loyalty in the context of e-Commerce?

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3. According to the perspective of the Chinese people, do e-satisfaction, and e-trust have a major impact on e-loyalty in the realm of e-Commerce?

This research relied heavily on quantitative methods. In his study, he focused on persons who lived in Beijing and utilized e-commerce services. These individuals were interviewed. The study population was estimated with the help of the information provided by Worldpopulationreview.com (2021). Consequently, the researchers modified the sample size for this research by using the sample size table that Krejcie and Morgan (1970) developed. We used a non-probability selection strategy that includes convenience and snowball sampling methods to select a sample size of 385 respondents to represent the population. On the other hand, out of the 385 targets, 394 people responded to the questionnaire, but 9 of them were disqualified from the data analysis.

In a structured questionnaire, a closed-ended question is a research instrument. Both the Internal Consistency Test (IOC) and the Cronbach Alpha Reliability Test (Cronbach alpha) were utilized to validate the study instrument before its distribution in the form of a questionnaire. There are significant relationships between internal consistency and internal consistency, as seen by the fact that the Cronbach Alpha is greater than 0.75 and the IOCs of three experts are greater than 0.5. When analyzing the data, we looked at the frequency of occurrence, the mean, and the standard deviation. In this study, inferential regressions were applied to test variable hypotheses extensively. The majority of the 385 people who took part in this survey were female (211, 54.9%), between the ages of 20 and 29 (133, 34.6%), learned about e-commerce from social media (158, 41.6%), had a monthly income of more than 10,000 RMB (144, 37.5%), used e-commerce service more than once per week (148, 38.5%), and believed that there are many product categories to meet the needs (118, 30.7%).

According to the survey findings, the mean and standard deviation of variables are important factors in determining the factors that influence customer e-loyalty in e-commerce from the perspective of Chinese people. Convenience ( $\bar{x} = 3.90$ ; SD = 0.604), Enjoyment ( $\bar{x} = 4.18$ ; SD = 0.855), Clear shopping process ( $\bar{x} = 4.04$ ; SD = 0.843), Reliable payment system ( $\bar{x} = 4.21$ ; SD = 0.606), E-satisfaction ( $\bar{x} = 3.90$ ; SD = 0.706), E-trust ( $\bar{x} = 4.08$ ; SD = 0.636), and E-loyalty ( $\bar{x} = 3.80$ ; SD = 0.914). The researcher used multiple linear regression to test hypotheses to understand the causal link better. Multiple linear regression, often known as MLR, is the method that is currently being utilized to assess the level of influence that Enjoyment and Convenience have on E-satisfaction. A further application of multiple linear regression is made to investigate the impact of a transparent purchasing procedure and a reliable payment mechanism on e-trust. Third, we are analyzing multiple linear regression to determine the extent of influence that e-satisfaction and e-trust have on e-loyalty. The testing of hypotheses showed that all of the independent variables had a statistically significantly lower value than 0.05. The results of testing the hypotheses are presented below and summarized in Table 15.

**Table 15:** Summary of the hypotheses testing results

| Statement of Hypothesis  | p-value | Decision results |
|--|---------|------------------|
| <b>H1a:</b> Convenience has a significant impact on e-satisfaction concerning e-loyalty among e-Commerce in Chinese people perspective.      | 0.000*  | Rejected         |
| <b>H1b:</b> Enjoyment has a significant impact on e-satisfaction concerning e-loyalty among e-Commerce in Chinese people perspective.        | 0.000*  | Rejected         |
| <b>H2a:</b> Clear shopping process has a significant impact on e-trust concerning e-loyalty among e-Commerce in Chinese people perspective.  | 0.032*  | Rejected         |
| <b>H2b:</b> Reliable payment system has a significant impact on e-trust concerning e-loyalty among e-Commerce in Chinese people perspective. | 0.000*  | Rejected         |
| <b>H3a:</b> E-satisfaction has a significant impact on e-loyalty among e-Commerce in Chinese people perspective.                             | 0.000*  | Rejected         |
| <b>H3b:</b> E-trust has a significant impact on e-loyalty among e-Commerce in Chinese people perspective.                                    | 0.476   | Accepted         |

The results of hypothesis testing using MLR and SLR reveal the strengths of variables that influence the determinants of Customer e-Loyalty among e-Commerce in Chinese people's perspective. For the E-satisfaction, Enjoyment ( $\beta = .853$ ) is first rank significant factor comparing with Convenience ( $\beta = .593$ ). The researcher ranked the significant factors that influence E-trust, the first rank significant factors is Clear shopping process ( $\beta = -.154$ ), the second rank is Reliable payment system ( $\beta = -.263$ ). For the E-loyalty, E-satisfaction ( $\beta = .615$ ) is first rank significant factor comparing with E-trust ( $\beta = -.031$ ). The ranking is summarized in Table 16 below.

**Table 16:** Strengths of factor influence of variable on Purchase intention

| Dependent variable | Rank | Independent variable | Standardized Coefficient |
|--------------------|------|----------------------|--------------------------|
|                    |      |                      |                          |

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|                     |     |                               | t      |
|---------------------|-----|-------------------------------|--------|
| E-satisfaction (ES) | 1st | Enjoyment (EJ)                | 0.853  |
|                     | 2nd | Convenience (CV)              | 0.593  |
| E-trust (ET)        | 1st | Clear shopping process (CSP)  | -0.154 |
|                     | 2nd | Reliable payment system (RPS) | -0.263 |
| E-loyalty (EL)      | 1st | E-satisfaction (ES)           | 0.615  |
|                     | 2nd | E-trust (ET)                  | -0.031 |

**5.2 Discussion and Conclusion**

In this research, the hypotheses testing indicated that Convenience and Enjoyment have an impact on E-satisfaction. Moreover, there are two variables that impact E-trust which are the clear shopping process and a reliable payment system. Finally, E-satisfaction and E-trust significantly influence E-loyalty.

**5.2.1 Convenience, Enjoyment, and E-satisfaction**

According to the findings of this study, a highly significant and favorable association exists between convenience and enjoyment, and e-satisfaction. It was determined that the significant value of E-satisfaction and Convenience was 0.000, which is less than 0.05. This suggests that convenience substantially impacts the degree to which a person is satisfied with their online experience. In addition to this, the findings of this research are reliable and align with the studies by Szymanski and Hise (2000), and Jun and Chung (2006). There is a positive correlation between ease of use and e-satisfaction.

Based on a descriptive analysis of convenience produced from three items in the questionnaire the researcher has completed, the statistical data shows that the mean of Convenience is 3.76. The question "I am satisfied with the convenience of transaction and accessibility of information" had the lowest mean score, with a score of 3.66. This score is lower than the average mean for the convenience category. On the other hand, the answer to the question "I am content with the convenience of transaction and accessibility of information" has a standard deviation of 0.792, making it the question with the highest standard deviation. Therefore, companies that provide services related to electronic commerce must keep the ease of conducting transactions and the accessibility of information. Enjoyment had a highly important and positive link with E-satisfaction, and this relationship was a reflection of the fact that Enjoyment was related to E-satisfaction. Enjoyment and e-satisfaction had a significant value of 0.000, less than 0.05. This suggests that enjoyment substantially impacts the degree to which one is satisfied with electronic purchases. E-satisfaction has a substantial direct influence on enjoyment (Ly et al., 2020; Ramayah & Lee, 2012; Tun Aung & Nuangjamnong, 2022). In addition, an online shopper's level of contentment will be directly proportional to the

amount of fun they have while shopping online (Ting et al., 2016; Nitchote & Nuangjamnong, 2022).

Based on a descriptive analysis of Enjoyment produced from three items in the questionnaire the researcher has done, the statistical data shows that the mean of Enjoyment is 4.05. Compared to the other questions' means, "When I buy over the Internet, I prefer to organize information" had the lowest mean, equivalent to 3.95, and was, therefore, lower than the average means of Enjoyment. On the other hand, the questions "When I buy over the Internet, I like to organize information" and "I enjoy shopping when I buy from sites with high system quality," both of which equal 0.855, there have the highest standard deviation. Together, these two questions account for the highest standard deviation. Therefore, organizations that provide services related to e-commerce ought to keep customer information organized and keep the quality of their systems good.

**5.2.2 Clear shopping process, Reliable payment system, and E-trust**

According to the findings of this study, the Clear shopping procedure possessed a correlation with E-trust that was both extremely significant and favorable. The Clear shopping process and E-trust each contributed a significant value of 0.032, which is significantly lower than 0.05. This suggests that the Clear shopping procedure has a major effect on E-trust. In addition, a streamlined shopping experience assists clients in the process of making purchasing selections within the context of the internet (Papadopoulou, 2007).

Based on a descriptive analysis of the Clear shopping process that was produced from three items in the researcher's questionnaire, the statistical data shows that the mean of the Clear shopping process is 4.01. This is based on the Clear shopping process. The question "When I understand the stages of buying online, I can simply decide to purchase," which received a mean score of 3.97, had the lowest average of all the questions. This suggests that it scored lower than the average means of the Clear shopping procedure. On the other hand, the answer to the question "A simple and fast ordering system makes me repurchase" had the largest standard deviation of any of the possible answers, coming in at 0.843. Therefore, organizations that provide services related to e-commerce should make the ordering process for clients as easy and quick as possible so that customers will want to make purchases.

According to the findings of this study, an E-trust rating is positively correlated with a Reliable payment system. This correlation is highly substantial. The significant value of the Reliable payment system and E-trust was less than 0.05, making it a negative number. This suggests that a trustworthy payment mechanism has a substantial bearing on the level of e-trust that exists. In addition, trust is an essential component in both customer happiness and the successful completion of goals when it comes to online payment systems. (Chen & Dhillon, 2003).

Based on a descriptive analysis of the Reliable payment system that was obtained from three questions in the

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researcher's questionnaire, the statistical data shows that the mean of the Reliable payment system is 4.03. This is based on the findings of the researcher's questionnaire. The question "Reliable payment system makes me trust this site" had the lowest mean of all the questions, with a score of 3.93. This score is lower than the average mean for questions pertaining to reliable payment systems. On the other hand, the answer to the question "Reliable payment method makes me trust this site" had the largest standard deviation of all of the possible answers, coming in at 0.783. Therefore, organizations that provide services for e-commerce should beef up their security procedures in order to offer their consumers a safe method of making payments.

### 5.2.3 E-satisfaction, E-trust, and E-loyalty

According to the findings of this study, a highly significant and favorable association exists between e-satisfaction and e-loyalty. It was determined that the significant value of E-trust and a reliable payment system was 0.000, which is less than 0.05. This suggests that e-satisfaction has a major influence on e-loyalty. In addition, Kim and Lennon (2010) discovered a correlation between a customer's satisfaction level and loyalty to an electronic service.

Based on a descriptive analysis of E-satisfaction generated from three questions in the researcher's questionnaire, the statistical data shows that the mean of E-satisfaction is 3.82. This is based on the findings of an analysis of E-satisfaction that was conducted.

The question "My decision to buy from this site was the appropriate one" had the lowest mean score of all the questions, which was 3.71. This score is lower than the mean score of other questions regarding e-satisfaction. On the other hand, the answer that "My decision to buy from this site was the appropriate choice," has a standard deviation of 0.789, making it the question with the largest standard deviation. Respondents are, therefore, of the opinion that purchasing online is the best option.

The findings of this study suggested that a weakly significant and unfavorable connection existed between e-loyalty and e-trust. E-trust and e-loyalty contributed to a significant value of 0.476, greater than 0.05. This suggests that customer pleasure does not substantially affect the level of loyalty experienced by customers. Furthermore, the results obtained by Kim et al. (2009) argue that privacy is the driver of e-trust, which in turn leads to customer e-satisfaction; however, from the perspective of China, it does not have a significant impact on e-loyalty, which can be defined as the number of people who use e-commerce services in China.

Based on a descriptive analysis of E-trust that the researcher has undertaken, the statistical data shows that the mean of E-trust is 3.90. This analysis was generated from three items in the questionnaire that the researcher completed.

This e-commerce organization has a secure method for data transfer and had the lowest mean score out of all the questions, with a score of 3.73. This score is lower than the average mean score for E-trust questions. On the other hand,

the answer to the question "I trust this website in terms of my privacy" has a standard deviation of 0.636, which is the largest of any of the questions. As a result, respondents have faith in and use e-commerce services that provide a safe channel for data transmission.

### 5.3 Recommendations

The findings of this research point to links between factors that are key predictors of customer e-loyalty in e-commerce from the point of view of the Chinese people. E-satisfaction, E-convenience, Enjoyment, and a Clear Shopping Process are All Elements That Have a Substantial Impact on E-loyalty. Additionally, E-satisfaction is driven by E-convenience, E-enjoyment, and E-Reliable Payment Systems. On the other hand, e-loyalty is not significantly affected by e-trust at all.

Consequently, e-commerce enterprises are interested in creating e-loyalty programs since loyal clients bring long-term benefits to the business. E-commerce businesses must continually work to increase the level of happiness and loyalty experienced by their customers if they are to remain in business. The cognitive impact behavior model serves as the framework for this particular research endeavor. The findings indicate that customers benefit and are satisfied with the transaction when they enjoy shopping easily via the Internet, particularly when businesses consider offering them rewards and discounts for shopping online. This is especially true when the customers are offered rewards and discounts for shopping online by the company. The customer's opinion of the website's level of security also has a beneficial influence on their level of trust in the online environment. This is in addition to a streamlined shopping experience and a secure method of payment. The formation of a customer's intention to make a subsequent purchase is heavily influenced by a number of factors, including trust on the one hand and contentment on the other.

### 5.4 Further Studies

This research has a number of shortcomings that need to be addressed. Because of time limits, the researcher concentrated on only three of the characteristics that affect e-loyalty in Beijing. These variables are convenience, enjoyment, a clear purchasing process, and a reliable payment system. E-satisfaction and e-trust are also included. In order to gain more thorough information and a better knowledge of the components, a similar study will need to be conducted for the subsequent research. The purpose of this study will be to assess whether or not other relevant aspects that affect e-loyalty should be added. In addition, additional research should be conducted using a bigger population and sample size in order to improve the generalizability and credibility of the research. In addition, the participants in this study are Chinese people who use e-commerce services; the findings may not be totally applicable to those whose cultural backgrounds are different. Therefore, a new study might be carried out in different nations in order to obtain more reliable results. In addition, the majority of the data given in this investigation focused on direct links between the variables investigated, and the research model did not take into consideration any potential indirect or mediating interactions.

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