Your secret weapon to achieve E-Loyalty
A Quantitative Study On Antecedents Leading To E-loyalty
Abstract

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Title: Your secret weapon to achieve E-Loyalty: A Quantitative Study On Antecedents Leading To E-loyalty
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Background: With the rise of e-commerce, more and more retailers switch the focus to online environment. In order to gain customers’ e-loyalty, e-retailers have to pay more attention to e-loyalty itself and its antecedents. To help practitioners and academicians better understand e-loyalty, theory of e-satisfaction, e-trust and perceived value were introduced in this thesis. A conceptual model was structured to further explain the relationships towards e-loyalty.

Purpose: The purpose of this thesis is to explain the relationship of e-loyalty and its antecedents (e-satisfaction, e-trust and perceived value) and identify the strongest antecedent leading to e-loyalty.

Methodology: This thesis followed a deductive approach and a quantitative research method. A self-completion questionnaire was used to collected data. Reliability, validity, significance tests and multi-linear regression analysis were applied and the results of the questionnaire were further interpreted.
Findings: Among these three antecedents, all three were prove to have a significant relationship with e-loyalty. According to the result of multi-linear regression, e-satisfaction affects e-loyalty directly and positively. E-trust showed a negative relationship with e-loyalty, which was rather contradicting towards previous studies. Meanwhile, perceived value proved to be the strongest antecedent which positively leads to e-loyalty.
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1. Introduction

This chapter firstly introduces e-commerce and sheds light on the importance of e-loyalty and its antecedents, namely e-satisfaction, e-trust and perceived value. Furthermore, it argues the relationship between e-loyalty and its antecedents and further seeks to problematize the reason of conducting this thesis. Last but not least, a purpose was presented based on the problem discussion.

1.1 Background

Oliver (1999) defined loyalty as the deep commitment from customers to repurchase a product or service from the same brand while not being influenced by the situational effects that might cause the change in purchase behaviour. Nowadays, with the development of the Internet, businesses are trying to reach out to the online customers and develop e-loyalty (Loyalty formed online). With the consideration of the Internet emerging to Web 2.0, paths have been opened for online interaction between firms and customers, rather than a solid one-way communication. This way, firms have another approach to present themselves to the customers and further impact the way firm’s image is shaping in customers’ minds (Nisara & Prabhakar, 2017). To develop and maintain E-loyalty, the concept of e-commerce has emerged in the business world. In short, e-commerce is the online transaction among a business and its customers, as well as other businesses (Ngai & Wat, 2002). Therefore, e-commerce is not about purchasing and selling transaction itself, but it is about the procedure that results gradually to purchasing and selling. Meaning that the process of buying or selling from the consideration to the action is covered under the e-commerce umbrella that defines it. The convenience and the ease of access to online stores has led to the rapid growth of e-commerce among online stores. Customers can learn how to become familiar with various features presented in online platforms when browsing the web. Thus, challenging the approach that e-retailers (Retailers operating online) take for obtaining customer e-loyalty (Nisara & Prabhakar, 2017). Regardless of the challenges that online
atmosphere can bring, retail stores have changed focus over the few years to move towards online interaction between the business and customers. Due to the online shopping being easily accessible for customers, e-retail stores tried to maintain a stable relationship with the customers online, resulting in the development of the concept of e-retailers (Nisara & Prabhakar, 2017).

During the past two decades, e-commerce has been proved to be a promising channel for customers to choose, especially in business-to-consumer (B2C) companies (Devaraj, Fan, & Kohli, 2002). According to the statistical report presented by Statista (2018a), the European online commerce market generated a revenue of roughly 131.6 billion euros in 2013. Moving to 2016, the European ecommerce turnover managed to reach 530 billion euros, four times greater than in 2013 (Ecommerce-europe, 2017). Meanwhile, global retail e-commerce sales increased from 1336 billion US dollars in 2014 to 2304 billion US dollars in 2017 (Statista, 2018b). This rapid growth of e-retailing reflects the great advantages of e-retailers over conventional brick-and-mortar stores (physical presence of an organization or business). The attraction of e-retailers may stem from Internet flexibility, low costs, convenience and customization (Srinivasan, Anderson & Ponnavolu, 2002). Meanwhile, this large growth indicates the remarkable potential of e-retailer and demonstrates that e-retailers are gradually replacing the traditional brick-and-mortar shopping channels (Pavlou & Gefen, 2004).

1.2 Problem Discussion

E-loyalty, which is regarded as the most important role in e-commerce, is also a critical requirement when e-retailers establish the relationship with customers (Griffin, 1996). According to the explanation by Lu, Chang and Yu (2013), e-loyalty is the customers’ intention to make repeated purchase from the website and frequently revisit that website. Based on this definition, e-loyalty was found to have a positive impact on word of mouth, meaning, loyal customers will introduce the website to friends (Hsu, Wu & Chen, 2013). Meanwhile, e-loyalty was also found to have a positive impact on profit,
making customers would like to pay more (Hsu, Wu & Chen, 2013). Reichheld and Sasser (1990) further indicated that a 5% increase in the number of loyal customers can enhance the profitability from the range of 30% to 85%. Therefore, with high e-loyalty, a company can not only win the market share but also develop sustainable competitive advantages (Luarn & Lin, 2003). Thereby, it is reasonable to say that e-loyalty is the most important antecedent affecting online business performance (Reichheld & Schefter, 2000; Day, 2000). Meanwhile, understanding the antecedents of e-loyalty is essential as well (Ramanathan, 2010) since these antecedents can help e-retailers to increase e-loyalty through carrying out specific strategies (Srinivasan et al., 2002). In order to forecast e-loyalty, studying antecedents which can help to increase e-loyalty is indispensable (Fuentes-Blasco, Saura, Berenguer-Contrí & Moliner-Velázquez, 2010). E-satisfaction, e-trust and perceived value among others are certain antecedents that have been mostly researched (Valvi & Fragkos, 2012).

In previous studies, e-satisfaction has been recognized as the most researched antecedent related to e-loyalty in e-commerce area (Chen, Rodgers & He, 2008; Taylor & Strutton, 2010). Meanwhile, several researches have proved the positive and direct relationship between e-satisfaction and e-loyalty (Anderson & Srinivasan, 2003; Gummerus, Liljander, Pura & Riel, 2004; Ribbink, Van Riel, Liljander & Streukens, 2004; Kim, Jin & Swinney, 2009; Anderson & Swaminathan, 2011; Christodoulides & Michaelidou, 2011; Audrain-Pontevia, N’Goala & Poncin, 2013; Valvi & West, 2013; Arya & Srivastava, 2015). This was further supported by Balabanis, Reynolds and Simintiras (2006) who stated that increasing e-satisfaction is one of the main strategies to enhance behavioral aspects of e-loyalty, making customers want to revisit a specific e-retailer website. Hence, it is reasonable and essential to use e-satisfaction —— e-loyalty relationship as the base.

Although e-satisfaction has been regarded as a fundamental antecedent when discussing e-loyalty (Anderson & Srinivasan, 2003), Zhu, Kuo and Munkhbold (2016) found that the positive relationship between e-satisfaction and e-loyalty is not supported. It is
thence argued that e-satisfaction is not enough to work alone, therefore, the e-satisfaction —— e-loyalty relationship should be extended and elaborated (Vu & Huan, 2016). Moreover, Luarn and Lin (2003) treated e-trust as a primary factor for customer loyalty in e-commerce since maintaining customers’ trust in the e-vendor (E-trust) is a vital way to retain customers. On the other hand, e-trust also strengthens the customer’s readiness to purchase online (Zhu et al., 2016). Furthermore, it enables e-retailers to gain the confidence and assurance from customers (Arya & Srivastava, 2015), which in turn helps to maintain the long-term relationships on revisit and repurchase (Ribbink et al., 2004). That is, high e-trust of customers will lead to high e-loyalty towards the e-retailers (Jarvenpaa, Tractinsky & Vitale, 2000). In this stream of research, many previous e-loyalty studies demonstrated that e-trust directly and positively affects e-loyalty (Arya & Srivastava, 2015; Flavián, Guinaliu & Gurrea, 2006; Lee, Kim & Moon, 2000; Park & Kim, 2003; Pitta, Franzak & Fowler, 2006; Ribbink et al., 2004; Kim et al, 2009). Hence, e-trust plays an indispensable role when studying antecedents of e-loyalty, and it is therefore included as an important antecedent in this thesis.

Moreover, perceived value is another critical antecedent which should not be neglected. Arya and Srivastava (2015) found that perceived value is the strongest antecedent among others leading to e-loyalty in product based website. Whilst, perceived value has also been proven to possess a positive relationship with e-loyalty by many other researchers (Anderson & Srinivasan 2003; Yang & Peterson, 2004; Quan, 2010; Taylor & Strutton, 2010; Polites, Williams, Karahanna & Seligman, 2012). Furthermore, since customers cannot touch or feel the products through the e-retailing website, it is only available to perceive the value based on online information/pictures provided, customers’ own expectations or online word of mouth (Kim et al., 2009; Arya & Srivastava, 2015). Coupled with the lower cost of product comparison in Internet environment, e-retailers should put more emphasis on perceived value in e-retailing context (Anderson & Srinivasan, 2003), and therefore perceived value is included as the last vital antecedent in this thesis.
Research done by Luarn and Lin (2003) and Harris and Goode (2004) took satisfaction, trust and perceived value as antecedents leading to loyalty. However, both of these studies were conducted on e-service industry. Luarn and Lin (2003) tested the effect of these three concepts on both loyalty and commitment and focused on e-service vendor, the research was specifically done in online traveling services and video on demand (VOD) industry (Luarn & Lin, 2003). Similarly, Harris and Goode (2004) tested these three antecedents on loyalty in two specific e-service website, Books.com and Flights.com. Meanwhile, service quality is also included in their model since the study was conducted in e-service industry. Different from the aforementioned two studies, although this thesis aims to test the same antecedents (e-satisfaction, e-trust and perceived value) leading to e-loyalty, the focus of this thesis is emphasized on e-retailing industry. To be more specific, the focus is on e-retail websites which only sell products online. Since the main theme of this thesis is e-loyalty, commitment and service quality which mentioned in the former two studies were eliminated in this thesis. Therefore, this thesis is indispensable and theoretically and practically interesting, which enhances the understanding of e-satisfaction, e-trust and perceived value to e-loyalty especially in e-retailing context. Meanwhile, very limited study has done such comparative empirical analysis between antecedents of e-loyalty (Arya & Srivastava, 2015), so in this thesis, comparing relative importance of these three antecedents of e-loyalty is critical as well.

1.3 Purpose

The purpose of this thesis is to explain the relationship of e-loyalty and its antecedents (e-satisfaction, e-trust and perceived value) and identify the strongest antecedent leading to e-loyalty.
2. Theoretical framework

This chapter introduced the e-loyalty in e-retailer context and then developed the current conceptual framework of e-satisfaction -- e-loyalty relationship with other antecedents leading to e-loyalty. Hypotheses were proposed and justified based on the pertinent literature.

2.1 E-loyalty

E-Loyalty is defined as “a consumer’s intention to buy from a website and will not change to another website” (Flavián et al., 2006, p. 5). For online e-retailers, e-loyalty is defined as “a customer’s favorable attitude towards the e-retailer that results in repeat buying behaviour” by Srinivasan et al. (2002, p. 42). The easy usage of the Internet has created a competitive market among various e-retailers that intend to increase online customer retention, which leads to the difficulty of gaining e-loyalty (Wood & Van Heerden, 2007). Consequently, for e-retailers to achieve e-loyalty and survive the online competitiveness, creating a strategy to achieve and sustain customer e-loyalty is of importance (Wood & Van Heerden, 2007; Anderson & Srinivasan, 2003). This achievement was calculated to be an expensive and time-consuming process; however, it is proved to be worthy regarding the amount of benefits it carries. The reason lies within the long-term benefits that e-loyalty can bring for the e-retailer, which is gathering loyal customers. Loyal customers proved to be respectful of the e-retailer’s journey. Loyal customers also have high visit frequency of the e-retailer’s website that can increase the purchase intention by every visit. By creating a positive word of mouth, loyal customers can attract new customers that are willing to give the e-retailer a chance to present themselves to more potential customers (Reichheld & Schefter, 2000; Ribbink, Van, Liljander & Streukens, 2004).

2.2 E-satisfaction

E-satisfaction is defined as the “the contentment of the customer with respect to his or her prior purchasing experience with a given e-retailer” (Anderson & Srinivasan, 2003,
The concept of e-satisfaction is a close resemblance of the traditional satisfaction, with the only difference being that the former includes characteristics reflecting the market around electronic environment, namely convenience and financial security (Szymanski & Hise, 2000). There are two characteristics regarding e-satisfaction that have been theorized: Transaction-specific and Cumulative. The former represents the judgment made by customers prior to purchasing a certain product (Chang & Chen, 2008). Cumulative is the overall satisfaction as well as the consumption experience of the customer regarding each purchase over a period (Kim et al., 2009). Overall satisfaction resembles the connection a customer developed towards a product, from prior purchasing to the post purchase experience. The determination of whether a customer is likely to develop product satisfaction occurs when customer’s expectations were met (Wood & Heerden, 2007). A number of researches showed that there is a relationship between e-satisfaction and e-loyalty (Arya & Srivastava, 2015; Chen et al. 2008; Taylor & Strutton, 2010). Moreover, the positive relationship between e-satisfaction and e-loyalty has been verified, which proved by various researchers stating that higher e-satisfaction leads to higher e-loyalty (Anderson & Srinivasan, 2003; Anderson & Swaminathan, 2011; Audrain-Pontevia, N’Goala & Poncin, 2013; Arya & Srivastava, 2015; Christodoulides & Michaelidou, 2011; Gummerus et al., 2004; Kim et al, 2009; Ribbink et al., 2004; Valvi & West, 2013). Higher overall satisfaction was proved to lead to e-loyalty because of the customer’s positive experience as well as the product satisfaction, and therefore, e-satisfaction is considered as a key driver to e-loyalty (Wood & Heerden, 2007; Anderson & Srinivasan, 2003). Contrary to the prior research, only one research conducted by Zhu et al., (2016) rejected the positive relationship between e-satisfaction and e-loyalty. Therefore, the following hypothesis was elevated:

**H1: E-satisfaction positively affects e-loyalty in e-retail context.**
Figure 1: E-satisfaction to E-loyalty.

2.3 E-trust

Trust is defined as the level of confidence of the customers regarding the quality and reliability of the product or service. Trust is the foundation to form and maintain the relationship in various business exchanges (Kim et al., 2009). In the online/electronic environment, e-trust is commonly used, and it is defined as the level of confidence that customers present when shopping online, or in the electronic environment (Ribbink et al., 2004). Anderson and Srinivasan (2003) stated that e-trust reflects the perceived level of risk associated with online purchasing. In fact, one of the reasons why a customer does not purchase from an online retailer is due to the lack of e-trust (Lee and Turban, 2001). Even if the customer satisfaction was met regarding various aspects of the e-retailer, customers are unlikely to purchase from the website if the reliability of e-retailer was not proved (Anderson & Srinivasan, 2003). Within E-commerce, the online transactions accompanied by the nonexistence of a physical store can increase the perception of risk for certain customers which certainly impact the level of e-trust towards the e-retailer (Shannon, 1998). On the other hand, high e-trust will lead to a more favorable attitude towards the e-retailer and hence will build high e-loyalty (Jarvenpaa et al., 2000). Thus, companies must gain customers’ trust in order to gain customer loyalty (Medintz, 1998). Previous e-loyalty researchers demonstrated the positive relationship between e-trust and e-loyalty and proved that e-trust plays a significantly important role on e-loyalty (Park & Kim, 2003; Ribbink et al., 2004; Flavián et al., 2006; Pitta et al., 2006; Kim et al, 2009; Arya & Srivastava, 2015). Lee et al. (2000) also confirmed that e-trust has a strong impact on customer e-loyalty. However, a few studies also found that there is no significant association between e-trust and e-loyalty, due to the complexity of the concept and the need to be accompanied by other antecedents (Herington & Weaven, 2007; Rafiq, Fulford & Lu, 2013; Valvi & West, 2013). Thus, the following hypothesis was presented:

H2: E-trust positively affects e-loyalty in e-retail context.
2.4 Perceived value

Perceived value plays a significant role towards achieving e-loyalty by keeping customers close to an e-retailer and potentially decreasing the chances of substituting the e-retailer with another competitor (Chang, Wang & Yang, 2009). Originally, perceived value was defined as “consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given” (Zeithaml, 1988, p. 14). In addition to the original definition, Parasuraman and Grewal (2000) further boosted the definition and it is now states as the evaluation of value of get (for instance benefits, physical product, time saving etc.) and value of give (for instance cost of product, personal information etc.). The new definition entails that customer must get enough benefits worthy of the value that the customer gave (Chang et al., 2009; Valvi & West, 2013). If the e-retailer fails to provide the value which perceived by customers, the chances of the customers gearing towards the competitor majorly increase, which leads to a decrease in e-loyalty towards the e-retailer (Anderson & Srinivasan, 2003; Valvi & West, 2013). Furthermore, e-retailers must focus on customer perceived value because it is rather easy and inexpensive for the customers to compare the prices of various products through the Internet. This point can further be justified due to the inability of touching or feeling the physical product. the incapability of forming a close resemblance of the product in customers’ minds can therefore cause e-retailers to lose potential customers to the competitors (Anderson & Srinivasan, 2003). Nevertheless, creating a positive perceived value in customers’ minds can highly lead to a positive e-loyalty. In various studies, perceived value is a critical antecedent in building and maintaining e-loyalty (Anderson & Srinivasan 2003; Arya & Srivastava, 2015; Polites
et al., 2012; Quan, 2010; Taylor & Strutton, 2010; Valvi & Fragkos, 2012; Yang & Peterson, 2004). A few researches mentioned that perceived value is one of the strongest antecedents of e-loyalty (Arya & Srivastava, 2015; Cyr, Kindra & Dash, 2008; Khare, Khare & Singh, 2012). In order to examine the positive relationship between perceived value and e-loyalty as well as its role upon other antecedents, the following hypothesis was presented:

**H3: Perceived value positively affects e-loyalty in e-retail context.**

![Figure 3: Perceived value to E-loyalty](image)

**2.5 Modified E-loyalty model**

Figure 4 shows the modified e-loyalty model which includes e-satisfaction, e-trust and perceived value as antecedents that lead to e-loyalty. All these three antecedents have been proven to positively affect e-loyalty according to previous studies. This model is similar to the model tested by Luarn and Lin (2003) and Harris and Goode (2004), but it will be tested in the e-retailing industry, namely e-retail websites.

![Figure 4: Modified E-loyalty model](image)
3. Methodology

This chapter explained and justified the research approach that was used in the thesis. Furthermore, the process of constructing questionnaire, sampling and collecting data was deeply explained as well. Meanwhile, the source of the data and the analysis method were also included in this chapter, and possible ethical affairs were discussed at the end.

3.1 Research approach

3.1.1 Deductive theory

Deductive theory shows a common way of viewing the nature of the relationship between theory and research (Bryman & Bell, 2011). According to the specific area related, researcher then proposes a hypothesis (or hypotheses) and validates the hypothesis (hypotheses) through the empirical investigation. Thereof, hypotheses should be researchable and measurable (Bryman & Bell, 2011). Since it is explained that deductive theory contributes to the academic community through ways of proposing, testing and offering support to the area with which researchers aim to validate (Janiszewski, Labroo & Rucker, 2016). In other words, deductive theory emphasizes on studying how a variable unilaterally influences other variable(s) or learn about the interaction between those variables (Bryman & Bell, 2011). Meanwhile, a deductive theory is usually accompanied with a quantitative research approach (Bryman & Bell, 2011).

Deduced theory is conducted through a linear process. Meaning, researchers should be aware of the action after each step. Therefore, deductive theory is demonstrated to have a logical sequence (Bryman & Bell, 2011). Researchers first need to explain the theories used and then develop hypotheses based on the theories. This can be done through operationalization where the theories are logically structured. The results gathered from
this approach enables the researchers confirm or reject the hypothesis. In this process, researchers can therefore have a clearer understanding of specific area or theory (Bryman & Bell, 2011). The theories used to form the hypotheses of this thesis were adapted from previous researches. The researchers of this thesis concluded that a deductive approach is best fitted to the purpose of the thesis. This due to the area of e-loyalty and its antecedents being well researched by previous researchers. Thus, there is no need to explore each concept deeply. However, to explain the relationships of e-loyalty and its antecedents in e-retailing industry, deductive approach was chosen as the suitable way to collect data.

3.1.2 Quantitative research method

Quantitative research is one of the research methods that focuses on testing the theories to study the relationship between theory and research. In general, quantitative research incorporates a deductive approach to develop the theories used in the research and emphasizes on collecting a large number of numerical data (Bryman & Bell, 2011). It addresses questions biased towards ‘how many’ or ‘how much’ instead of ‘what’, ‘how’ or ‘why’ (McCusker & Gunaydin, 2015). Whilst, both quality and quantity of the data are important in the quantitative research. By conducting a low quality research, the potential of getting a false result is rather high due to the dependability of the results on the data (McCusker & Gunaydin, 2015). Furthermore, quantity of the data is another point that researchers should acknowledge, because of the anticipated large number of data and statistics gathered. Meaning, the conclusion is generalized from a large population (Bryman & Bell, 2011; McCusker & Gunaydin, 2015). In a quantitative research, researchers usually hope that the collected sample to be as representative as possible so as to say that the conclusion is not unique, but universal. That is, the results gathered from the collected sample should be regarded as valid towards the entire population. Hence, the quantitative questionnaire should be measurable, causal, generalized and replicable, ensuring the result to be objective (Bryman & Bell, 2011;
McCusker & Gunaydin, 2015). According to McCusker and Gunaydin (2015), quantitative research contains a huge number of data, it standardizes those data using statistics which is referred to as hypothesis testing. Hypothesis testing through statistics can further help the researchers to explain and distinguish the relationship and thus approve or disapprove one or more hypothesis (McCusker & Gunaydin, 2015; Bryman & Bell, 2011). The large number of results gathered should be then tested through hypothesis testing that uses statistics to help the researchers explain the data (McCusker & Gunaydin, 2015; Bryman & Bell, 2011). Likewise, a quantitative research method was chosen for this thesis, because of the subject matter not being as explained in e-retailing industry as other researched industries. A quantitative research thus helps the researchers of this thesis to confirm or reject various hypotheses regarding e-loyalty and its antecedents in e-retailing industry. Also, because of the large number of data gathered from the questionnaire, this strategy was chosen. Its transparency and its ability provides a clear set of statistical information which can clearly state the correlation between the variables tested.

3.2 Research design

A research design is a framework which includes section of data collection and data analysis. According to Malhotra (2003), research design contains of three types of research: Causal research, Exploratory research and Descriptive research. The researchers of this thesis followed a causal research design, which is defined as identifying the extent and nature of the cause-and-effect relationships. It focuses on explaining the patterns of relationship between variables assumed for a situation or a specific problem (Zikmund, Babin, Carr & Griffin, 2013). There are a few unique characteristics involved within a causal research. Firstly, the situation or uncertainty of the area that the researchers aim to study is clearly defined. Meaning, the research area regarding a specific issue is vastly developed (Zikmund et al., 2013). Through gathering a detailed literature review regarding brand loyalty, the researchers of this thesis detected a lack of research in e-retailing context. This led the researchers to believe that
there might be uncertainty regarding the results from brand loyalty researches in e-retailing context. Hence, causal research was preferred in order to test the causal relationship between e-loyalty and its antecedents. Moreover, another characteristic of the causal research is the importance of including research hypothesis which is the key factor and a common way to conduct a research (Zikmund et al., 2013). Therefore, this thesis raised three hypotheses according to previous researches. Lastly, the causal research approach is highly structured (Zikmund et al., 2013). This thesis stated three hypothesis, one for each relationship; namely, e-satisfaction, e-trust and perceived value, each positively affects e-loyalty in e-retail context. The researchers then strictly followed the design of a causal research as proposed by previous authors, while the questions in the questionnaire were carefully selected and completely structured to resemble the operationalized theories used in this thesis.

### 3.3 Data Source

Prior to the data collection, knowledge regarding the different types of data is of importance. Data are usually divided into two categories, primary data and secondary data (Bryman & Bell, 2011). Primary data stands for those data originally collected by researchers, that is, the collected data is consistent with the objects that the researchers want to focus on (Bryman & Bell, 2011). Secondary data only allows the researchers to reference the data collected by another researcher(s), a company or an organization for its own purpose (Bryman & Bell, 2011). For this thesis, primary data was chosen as the suitable data source because of the importance on collecting primary information regarding the lack of research on e-retailing context in brand loyalty area. When addressing specific issues in the academic area of interest, primary data serves as a best strategy that can be easily controlled towards the problems found by the researchers (Hox & Boeije, 2005). This flexibility can be illustrated in different forms, namely in the form of a questionnaire. Questionnaire is stated to be the most efficient tool to gather primary data. Using a carefully selected set of questions, questionnaires can help to better solve the research problem, and therefore guarantee the coherence and
consistency of the study (Bryman & Bell, 2011; Hox & Boeije, 2005).

3.4 Data collection method

In order to collect the primary data, researchers can use either self-completion questionnaire or postal questionnaire (Bryman & Bell, 2011). In this thesis, self-completion questionnaire was chosen. Self-completion questionnaire, also known as self-administered questionnaire, is when the respondents answer the questions without the help of the researchers. Respondents do not contact the researchers, but only if the respondents face conflict(s) regarding the questionnaire or simply want to be more involved in the research. Furthermore, self-completion questionnaire provides high convenience both for the respondents and the researchers. With the process being less time-consuming and cost free, the respondents can answer and leave the questionnaire at any time and the researchers can collect the data easily in a shorter amount of time (Bryman & Bell, 2011). Because of the aforementioned benefits of the questionnaire, a questionnaire was designed in a way that reflects all of the aspects regarding the relationship between each antecedent and e-loyalty. The questionnaire is featured in the Appendix A, which is consistent with the actual questionnaire sent.

3.4.1 Operationalization

Operationalization enables the researchers to measure the concepts in which the researchers want to measure. That is, the way of constructing operationalization enables the researcher to clarify and define the concepts that are set to be tested. Since the notions or concepts can occasionally be abstractive, researchers need to break down the concepts into observable characteristics or behaviours using operationalization (Bryman & Bell, 2011; Sekaran & Bougie, 2016). Operationalizing the concepts is therefore a way to measure the variables in a tangible way (Sekaran & Bougie, 2016).

Concept is defined as "the building blocks of theory and represent the points around..."
which business research is conducted” by Bryman & Bell (2011, p. 163). There are three steps when operationalizing a concept. Firstly, researchers need to include the definition of the construct that is going to be measured. Secondly, a determination of the subdivided indicator(s) needs to be included as it estimated for one or more items or questions measuring a specific concept (Bryman & Bell, 2011; Sekaran & Bougie, 2016). After identifying the indicator(s), deciding for a way to measure the indicator(s) as the last step is of importance. Bryman and Bell (2011) defined four categories for measurement scales, which are nominal scale, ordinal scale, interval scale and ratio scale. In this thesis, only nominal scale and interval scale were used. Nominal scale, also known as categorical variables, includes those variables which cannot be ranked, such as gender (Bryman & Bell, 2011). Therefore, in this study, nominal scale is used to measure age group and gender. In interval scale, numbers are used to rank objects and represent equal increments between each number (Bryman & Bell, 2011). For instance, to do a multiple-indicator measure of a concept, researchers use a Likert scale to investigate a cluster of attitudes. Whilst, Likert scale is often in forms of seven-point scale or five-point scale, ending by "strongly disagree" and "strongly agree" (Bryman & Bell, 2011; Sekaran & Bougie, 2016). Since questions about the extent of consumers’ e-loyalty attitude towards e-retailers was tested, it is rational to use interval scale in this thesis.
### 3.4.1.1 Operationalization table

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concept</strong></td>
<td><strong>Definition</strong></td>
</tr>
<tr>
<td>E-loyalty</td>
<td>A customer’s favorable attitude towards the e-retailer that results in repeat buying behaviour.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concept</strong></td>
<td><strong>Definition</strong></td>
</tr>
<tr>
<td>E-satisfaction</td>
<td>The contentment of the customer with respect to his or her prior</td>
</tr>
<tr>
<td><strong>purchasing experience with a given e-retailer.</strong></td>
<td><strong>Sat_2</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Sat_3</strong></td>
<td><strong>Overall satisfaction</strong></td>
</tr>
<tr>
<td><strong>E-trust</strong></td>
<td><strong>Tru_1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Tru_2</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Tru_3</strong></td>
</tr>
<tr>
<td><strong>Perceived value</strong></td>
<td><strong>Pv_1</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Pv_2</strong></td>
</tr>
</tbody>
</table>
The choices of products and/or services offered by the website are better than its competitor(s).

(Luarn and Lin, 2003).

Table 1. Operationalization

<table>
<thead>
<tr>
<th>PV_3</th>
<th>Competitors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The choices of products and/or</td>
</tr>
<tr>
<td></td>
<td>services offered by the website</td>
</tr>
<tr>
<td></td>
<td>are better than its competitor(s).</td>
</tr>
<tr>
<td></td>
<td>(Luarn and Lin, 2003).</td>
</tr>
</tbody>
</table>

3.4.2 Questionnaire design

In order to collect a large number of quantitative data, questionnaire is the tool that generally used in quantitative research, which can be administered personally, distributed electronically, or mailed to the respondents (Sekaran & Bougie, 2016). When designing a questionnaire, there are five principles to encounter: “1. the appropriateness of the content of the questions. 2. How questions are worded and the level of sophistication of the language used. 3. The type and form of questions asked. 4. The sequencing of the questions. 5. The personal data sought from the respondents.” (Sekaran & Bougie, 2016, p.146).

For the content and purpose of the questions, the researchers need to clarify whether the question is asking a subjective feeling or stating objective facts. The questions should dig deeper into the dimensions and elements of the concept (Sekaran & Bougie, 2016). For example, a question such as “I am overall satisfied with this e-retail website.” is a subjective question which respondents have their own evaluation criteria in mind regarding what is under the category of “overall satisfied” (See Appendix A). This question “What is your gender” is considered to be an objective question (See Appendix A). The questions designed for this thesis were carefully analyzed from a
subjective and objective perspective to ensure the maximum level of comfort for the participants when answering the questionnaire.

When designing a questionnaire, the language and wording of the questionnaire needs to be carefully stated. All the questions should be easy to understand and digest by the respondents. Meaning, the wording and phrasing of the question should not raise more questions in the mind and cause conflict and doubt. Researchers should take into consideration the respondents’ educational level, the culture and the frames of references (Sekaran & Bougie, 2016). To see whether the questions asked are understandable, the researchers of this thesis conducted a small scale of pretest and asked respondents to explain what each question means to them and whether each question is clear to the respondents. This step is important in a sense that it ensures the respondents would not understand questions in a way it was not supposed to be understood (Sekaran & Bougie, 2016). After the pretesting sessions, the researchers later revised the questions based on the suggestion provided by the pretest respondents and tutor, making sure that each question was accurately understood by respondents.

Moreover, there are two types of questions when conducting a questionnaire: open-ended questions and closed questions. Open-ended questions refer to the question that allows respondents to answer the question in any way. By contrast, closed questions ask respondents to choose one or more among a set of choices. It rushed the respondents to make a quick decision since the options are fixed. It also helps researchers to easily code the information when analyzing the results gathered from the questionnaire (Sekaran & Bougie, 2016). In this thesis, only one question was in the form of an open-ended question: “What is the name of the e-retail website that you frequently shop?” (See Appendix A). The rest of the questions were in the form of closed questions which provided the respondents various options to choose from.

When considering the sequence of questions in the questionnaire, the researchers should form the questions from asking general information down to the more specific
and targeted questions. The answers also vary following the order of the questions; from relatively apparent answers to relatively complicated answers that might require extra attention (Sekaran & Bougie, 2016). The questionnaire designed by the researchers of this thesis were structured in the same stated order: from general questions to specific questions which were all verified by the advisor. It is important to stress that the questions were taken from previous researchers done in the same concept as this thesis. However, the researchers of this thesis adapted those questions into e-retailing context. The questions used for this thesis were selected from Flavián et al. (2006), Kim et al. (2009) and Luarn and Lin (2000).

Classification data is also another important part to consider. It is also known as personal information or demographic questions, such as age, gender, income and etc. Unless absolutely necessary, it is best not to ask the name of the respondents. The research should also clearly inform the respondents about the procedure of the questionnaire and how the answers of respondents will be used within the research (Sekaran & Bougie, 2016). In this thesis, the researchers not only had a clear and detailed cover letter at the beginning of the questionnaire, but also kept the questionnaire completely anonymous. Only age group and gender of the participants were collected at the end of the questionnaire, which were not marked as mandatory. Details regarding the design of the questions in the questionnaire are visible in Appendix A.

3.4.3 Pre-testing

Pretest is also known as pilot-test, which refers to test the questionnaire on a small scale of respondents to identify and eliminate the potential problems. All aspects of the questionnaire should be tested, such as content of the questionnaire, wording of the question, sequence of the question and etc. Researchers also need to ensure that the respondents for pretest and for the actual questionnaire come from the same population.
Meanwhile, recording the reactions and feedback of pretest respondent is as well critical (Dillman, Smyth & Christian, 2009). Researchers of this thesis pretested 30 people before the questionnaire sent out. Some of the problematic questions were revised according to the suggestions given by respondents and the supervisors.

According to the result gathered from the pretest, the researcher of the thesis tested both reliability and validity of the study. The Cronbach’s alpha for e-loyalty, e-satisfaction, e-trust and perceived value were 0.6, 0.7, 0.7 and 0.7 respectively. Also, the validity correlation was lower than 0.7. In accordance to the criteria of Cronbach’s alpha, the result of reliability test should not below 0.6. Meanwhile, the validity correlation test should not bigger than 0.9 (Hair, Black & Babin, 2010). Therefore, the researchers of this thesis removed one question and tested the Cronbach's alpha again and the result was more than 0.6. This change improved the quality and the credibility of the questionnaire by making the questions more consistent and more coordinated with the concepts. Once the changes were applied and approved again by supervisors, the official questionnaire was sent out.

### 3.5 Sampling

Sampling is an efficient way to study people and gather information regarding different activities or different thoughts of a massive population. Sampling thus is a practical way to analyze a population without taking into account every single person in the population. The population can be members of a large community, or members of a company. It is important that the chosen sample represents the entire population, meaning that in the end, the results gathered from the sample should be generalized to the larger population (Bryman & Bell, 2011; Zikmund et al., 2013). To gather an accurate sample that represents its population, knowledge regarding the techniques of conducting a sample is of importance. In a quantitative research, numbers of sampling techniques can be used depending on the purpose of the research. For this thesis, non-probability sampling was chosen as a suitable technique, because of the focus being
specifically on online consumers. Non-probability sampling is a sampling technique in which the selection probability of each unit is not equal to another (Bryman & Bell, 2011; Greener, 2008). For instance, the probability of selecting person A and person B is unknown and person B might have a higher or lower chance of being selected as person A. Non-probability sampling includes a few sub-methods, namely convenience sampling. Convenience sampling, as the name suggests, is a convenient and easily accessible sampling technique that is common among the researchers. The reason for this commonly used technique is because it allows researchers to gather the opinion or suggestions from the sample easily and in a less time consuming way possible (Adams et al., 2007; Malhotra & Birks, 2007). Due to the low possibility of involving every member of the population into the sampling, non-probability sampling was chosen as the sampling technique for this thesis instead of random sampling. Furthermore, since the time for conducting information was limited, convenience sampling was chosen as the sub-method of the non-probability sampling technique.

3.5.1 Sample selection

After selecting the relevant population for the sampling, researchers should consider the sample size. Adams et al. (2007) pointed out when gathering representatives for the sample selection, one should focus on the sample size and not only the population it addresses. Meaning, when the sample contains a very few number of representatives, the information gathered from the sample is less reliable. Studies did not solely mention the maximum number of the sample size. However, it was pointed out that the larger the sample size and the wider the sample selection, the more accurate the results would be (Adams et al, 2007; Malhotra & Birks, 2007). To accurately estimate the sample size when testing the relationship of each antecedent to e-loyalty, the rule-of-thumb presented by Morgan and Wilson van Voorhis (2007) was applied to measure the minimum number of the sample size required for the model presented in this thesis:
Remembering the model presented in this thesis, three independent variables were included in the model. Replacing $m$ with three, the number ($N$) of the sample size is bigger than 74. After conducting the questionnaire, a total of 156 respondents have answered the questionnaire and thus became a part of the sample size for this thesis.

### 3.5.2 Data collection procedure

After carefully crafting the questionnaire and inputting the questions and relevant information about the thesis, the questionnaire was ready to be sent. The questionnaire is situated in Appendix A. The researchers shared the questionnaire through Facebook, E-mails, and a limited set of chatting platforms such as Telegram and WeChat. The data collection procedure took place within a week and a total of 156 answers were collected.

### 3.6 Data analysis method

When the data is gathered through various techniques such as questionnaires, it is ready to be analyzed. Using a tool such as SPSS (also known as Statistical Package for the Social Sciences) is efficient because it gives the researchers useful analysis of the data in various forms of charts and tables. However, knowledge regarding the terms and the meaning behind each value presented by SPSS is much appreciated. This goal is met using descriptive statistics and its various forms (Greener, 2008).

#### 3.6.1 Descriptive statistics

Descriptive statistics assist the researchers by providing a summary of data in a
numerical form. Through this method, data is put in a way which is easier to categorize and compare data relevant for each variable (Zikmund et al., 2009). The description of data can be gathered in two forms, namely central tendency and dispersion. Central tendency can be accessible through the mean and it is the most common technique to measure central tendency. Another technique is median which is used to ensure the midpoint value in a large set a data. Lastly, mode is used alongside to measure the most repeated value in a data set. (Bryman & Bell, 2011; Greener, 2008). Dispersion is used in order to measure how data is spreaded around the central tendency. This is possible by measuring the standard deviation that shows “the average amount of variation around the mean” (Greener, 2008, p.59). Meaning, a high standard deviation is a sign that there is a larger abnormality around the mean (Bryman & Bell, 2011).

It is rather difficult and time consuming to gather the statistical measurements by hand because of the size of the data gathered. This may result in errors and conflicts during the process of measurements. (Nolan & Heinzen, 2011). SPSS is a tool to gather data and construct diagrams and charts with more accuracy, which was considered ideal by the researchers to be used for this thesis.

### 3.6.2 Regression Analysis and Multiple Linear Regression

In order to measure the relationship between each independent variable to the dependent variable, an understanding of the regression analysis is needed. Regression analysis is applied when the researchers want to determine the existence relationship between independent variables and dependent variables, as well as the stability and the strength of the relationship (Malhotra & Birks, 2007). This measurement can be conducted through multiple linear regression analysis. Multiple linear regression measures the percentage of the dependent variable in relation to the independent variables (Malhotra & Birks, 2007; Nolan & Heinzen, 2011). In order to test the hypothesis and calculate the multiple linear regression, testing the level of significance
is of importance. The significant level is determined to be 90\%, 95\% or 99\%. Each number represents the number of false sample(s) that might tamper with the relationship between variables. To be straight forward, 99 percent means there is only one percent chance that the relationship is not supported. 95 percent means that there is a five percent chance that the relationship is not supported. 90 percent means ten percent chance that the relationship is not supported. The closer the percentage to 100, the stronger the significance level (Bryman & Bell, 2011). For this thesis, the base for the significance level is set to be 95 percent.

When the significance level is regarded as acceptable, it is important to shed light on adjusted $R^2$. Adjusted $R^2$ indicates the level of involvement of the independent variables on the dependent variable. Adjusted $R^2$ in SPSS is a number between 0 and 1. The closer the adjusted $R^2$ to 1, the higher the percentage of the dependent variable in regards to the independent variables. The suggested number of adjusted $R^2$ by literatures is more than 0.60. To clarify the meaning behind the numbers, 0.60 simply means that 60 percent of the dependent variables is explained through the independent variables and the remaining 40 percent is explained through other independent variables that were not the focus of the research (Malhotra & Birks, 2007).

Alongside the significance level and adjusted $R^2$, another factor is used to further explain the results of multiple linear regression. Standardized regression coefficient (or beta coefficient) shows the most impactful independent variable on the dependent variable as well as the motivation for its impactfulness. There is no limit for the number of beta, however the value of beta can be positive or negative. Whilst, the higher the beta, the higher the independent variable’s impact on dependent variable (Nolan & Heinzen, 2011).

### 3.7 Research quality

In order to evaluate a good quality measurement of variables and gather a high quality
research, two principles are of importance: **Validity** and **Reliability**. Validity seeks for the answer to whether a specific indicator is measuring what it is supposed to measure. When conducting a questionnaire. There are three types of validity, namely **Face validity**, **Construct validity**, and **Criterion validity**. Reliability stresses on the consistency of the measurement of a research, which should be stable and accurate over time (Bryman & Bell, 2011). The following further describes each principle as well as its contribution in this thesis.

### 3.7.1 Face validity

Face validity is a principle of measuring the validity in which it reflects whether an indicator or an item completely reflects the same image as the concept tested (Bryman & Bell, 2011). Face validity is estimated by non-researchers and those with little information regarding the concept in-depth. Non-professionals in the field of research should be able to validate that the indicator is in fact in line with the concept. This suggests that face validity is a type of validity that is dependent on the person’s level of understanding and the feeling towards the concept (Bryman & Bell, 2011). The researchers are encouraged to use face validity as a part of the validity testing. Face validity is conducted when the researchers guide the participants through each question and receive feedbacks from the participants (Greener, 2008).

Before the hand out of the main questionnaire, the researchers of this thesis held a few sessions of pretesting where a set of questions were presented to the respondents. After pretesting sessions and revision of the questions, the researchers have formed the questionnaire. Various changes have been made; from basic changes such as the choice of words to the more in-depth changes such as the relevance of certain questions to the main concept that thesis intends to measure. All of the changes have resulted in the formation of the main questionnaire mentioned in the Appendix A.
3.7.2 Construct validity

Construct validity is another approach to determine the validity of the research. This approach is mostly taken into account when the data has been gathered and analyzed. Construct validity “asks if there is a relationship between how the researcher operationalized concepts in the study to the actual causal relationship that he/she is trying to study.” (Adams et al., 2007, p. 237). Meaning, the understanding of the concept and its various relationships should reflect the existing version. Therefore, construct validity relies on a high richness of theory regarding the concept that is being researched (O'Gorman & MacIntosh, 2015). Construct validity is estimated through the correlation analysis, which unveils the strongest linear relationship between an independent variable and the dependent variable among other linear correlations. In order to estimate the level of the linear relationship, correlation coefficient is used. The outcome of the correlation coefficient is a number between -1 and +1. -1 being the strongest negative relationship and +1 being the strongest positive relationship. Coefficient can be 0 which reveals that there is no relationship between the tested variables (Hair et al., 2010; O'Gorman & MacIntosh, 2015). It is important to take into consideration that the correlation coefficient should not be more than 0.8. Coefficient more than 0.8 usually means that the variables were too similar to distinguish and thus, resulting in a failed and unstable construct validity (Hair et al., 2010).

As the purpose of this thesis is to find the most influential antecedent towards e-loyalty, understanding of the correlation coefficient is essential to determine through numbers which antecedent has the strongest positive relationship to e-loyalty. The results gathered from the final questionnaire found to have a high validity, since the validity of the results were less than 0.8.
3.7.3 Criterion validity

Additional approach to measure validity is criterion validity. Through criterion validity, the researchers create a criterion regarding a case and try to test the various causes and effects regarding the happening of the case. This approach then determines the accuracy of the relationship posed by the researchers (Saunders, Lewis & Thornhill, 2009). Bryman and Bell (2011) introduced the case of job satisfaction and employed people. One criterion to job satisfaction can be identified as “absence”. The relationship thus can be stated that the increase absence of employed people can be regarded as the sign of a low satisfaction towards the job (Bryman & Bell, 2011). The researchers of this thesis stated three hypotheses and using the criterion validity, the accuracy of each hypothesis was tested and ensured.

3.7.4 Reliability

Reliability is tested in order to indicate the accuracy, stability and consistency of the data. Reliability is tested using three approaches: Stability, Internal reliability and Inter-observer. Stability simply concerns if the results gathered are stable and not in risk of any changes when re-observed over time. Internal reliability oversees the answers given by the respondents and targets whether the answers are in line with other questions asked within the similar concept. For instance, if a few questions were asked for one concept, the answers to each question has to be in line with other questions since they all represent the same concept. If this situation fails to represent itself, it is a sign that the items are not in line with the concept and therefore, a change regarding this is essential (Bryman & Bell, 2011; Hair et al., 2010). Lastly, inter-observer focuses on the way the data is analyzed. Meaning, when facing conflicting situations when gathering data, the researchers have to be cautious and remain consistent when explaining the results gathered (Bryman & Bell, 2011).
Reliability can be measured using Cronbach’s alpha (or coefficient alpha). This measurement can provide the results as to whether the questions in a questionnaire are reliable and dependable on each other. Cronbach’s alpha is between 0 and 1. 0 being the least consistent and reliable and 1 being the most consistent and the most reliable (Bryman & Bell, 2011). The closer the Cronbach’s alpha to 1, the higher the reliability and as a result, the stronger the relationship between variables (Hair et al., 2010; Graziano & Raulin, 2010; Nolan & Heinzen, 2011). However, Cronbach’s alpha less than 0.6 is estimated to be invalid and the researchers then have to search for better and more reliable question(s) that can increase the reliability (Nolan & Heinzen, 2011; Hair et al., 2010; Graziano & Raulin, 2010). According to the results gathered from the final questionnaire, the value of Cronbach's alpha for e-satisfaction, e-trust, perceived value and e-loyalty were 0.871, 0.904, 0.810, and 0.644 respectively.

3.8 Ethical considerations

There have been concerns about the ethics and its issues when conducting a research. The entire process of conducting the research has to follow ethical rules that have been pointed out by the academic counselors. Meaning, from asking questions on questionnaires or focus groups to the entire process of collecting data from people and analyzing the data, are only general factors that researchers should take into consideration regarding ethical issues (Saunders et al., 2009). Thus, it is important to clearly know the principles of ethics. Not harming the participants is one of the ethical rules that needs to be followed (Bryman & Bell, 2011). Harm can be in forms of physical, and mental. Second principal is regarding the general but important information shared with the participants. The participants have the right to be informed about the research subject, as well as knowing the rules when conducting the research. Third principal is the issue of privacy of the participants which should clearly not be broken. Lastly, following the privacy issues, the participants have the right of free will. Meaning that the participants should not be forced to answer personal questions and also are provided the right to refuse from participation if personal reasons are involved.
(Bryman & Bell, 2011).

In the questionnaire, which was designed by the authors using Google Forms and approved by the supervisors, the ethical issues were considered. Before the questionnaire began, a cover letter containing information about the research was shown. In the cover letter, the participants were informed about the purpose of conducting this questionnaire. The authors ensured that the questionnaire contained no violation of privacy and the participants were informed about the anonymity of their answers before taking the questionnaire. Almost none of the questions in the questionnaire were mandatory, so that the participants could voluntarily answer or leave the questionnaire at any time.

Furthermore, it is of significance to highlight the potential social issues of the research on social communities. A research might control the ethics regarding the participant’s involvement in conducting the research, however it is considered unethical to disregard the social issues a research might present. There are various forms of issues that a research can present in a social community. Namely, whether the society can provide solutions to the potential problem presented, or whether the study has any potential in harming a specific social group (Cirt.gcu.edu., 2018). It is considered socially unethical if the research provides solutions that the society might have problems applying it. These problems can be identified as financial problems, personal problems, or political problems. Therefore, the researchers must take into account the potential social issues and must respect values and beliefs of the social community (Cirt.gcu.edu., 2018; Labott et al., 2013). The researchers of this thesis have evaluated this thesis and data collection to be free of any social harms or any disrespectful forms of language and thoughts. When designing the questionnaire, the relevance of the questions regarding e-loyalty and three antecedents in e-retailers were examined carefully. No specification regarding the participant’s beliefs or personal specifications were made, because the researchers declared these types of questions to be irrelevant and unethical in conducting this thesis.
4. Result

According to the data collected from questionnaires, descriptive statistics, reliability and validity, multiple linear regression analysis were presented in this chapter. Also, the table of hypotheses results was presented at the end of this chapter.

4.1 Descriptive Statistics

A total of 156 respondents submitted and answered the questionnaire, and all the questions were answered by these respondents. Therefore, there is no missing value in this questionnaire. Among the data gathered in table 3, respondents from 20-29 account for the largest proportion, which achieve 59%. The percentage of age group that were below 20, 30-39, 40-49, 50-59, 60-69 represent 5.1%, 9%, 7.1 %, 12.2% and 7.7% respectively. No respondent in this questionnaire was over 70 years old. In table 4, out of all 156 respondents, female respondents accounted for 58.3% (91 females) while male respondents accounted for 41.7% (65 males). All the data collected was analyzed by the software IBM SPSS Statistics 25.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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Table 2. Descriptive Data - Variable

<table>
<thead>
<tr>
<th>Age group</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Below 20 years old</td>
<td>8</td>
<td>5.1%</td>
</tr>
<tr>
<td>20 – 29 years old</td>
<td>92</td>
<td>59.0%</td>
</tr>
<tr>
<td>30 – 39 years old</td>
<td>14</td>
<td>9.0%</td>
</tr>
<tr>
<td>40 – 49 years old</td>
<td>11</td>
<td>7.1%</td>
</tr>
<tr>
<td>50 – 59 years old</td>
<td>19</td>
<td>12.2%</td>
</tr>
<tr>
<td>60 – 69 years old</td>
<td>12</td>
<td>7.7%</td>
</tr>
<tr>
<td>Over 70 years old</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>156</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 3. Descriptive data - Age group

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>91</td>
<td>58.3%</td>
</tr>
<tr>
<td>Male</td>
<td>65</td>
<td>41.7%</td>
</tr>
</tbody>
</table>
Other & 0 & 0% \\
Total & 156 & 100.0% \\
\hline

Table 4. Descriptive data – Gender

Table 2 represents the minimum, maximum, mean and standard deviation of three independent variables (e-satisfaction, e-trust and perceived value) and one dependent variable (e-loyalty). A 7-point likert scale was used in the questionnaire, and the maximum value for all variable is 7. Only minimum value of Sat_1, Tru_2 and Loy_3 is 1. The minimum value for other variables ranges from 2 to 4. Meanwhile, the mean of all variables are around 5. When comparing the mean of e-satisfaction, e-trust and perceived value, the value of these three independent variables is quite similar, which is 5.62, 5.37 and 5.54 respectively. Meaning, for all the questions asked in the questionnaire, respondents basically had a positive attitude towards those questions. Also, the standard deviation for all these three independent variables is similar as well, which shows the value of 0.909, 1.146 and 0.902 respectively. The standard deviation value for mean of the e-trust is the biggest, meaning, answers of questions about e-trust had a wide rage.

4.2 Reliability and Validity

As aforementioned, reliability and validity of the data were tested through Cronbach’s alpha and correlation analysis. The value of Cronbach’s alpha for each variable is shown in Table 5. Also, the validity for all variables are presented in Table 6.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-satisfaction</td>
<td>0.871</td>
</tr>
<tr>
<td>E-trust</td>
<td>0.904</td>
</tr>
</tbody>
</table>
Table 5. Reliability

As it is mentioned in the chapter 3.9, the criteria accepted for Cronbach’s alpha in this research is 0.6. Though Hair et al. (2010) suggested to have a Cronbach’s alpha which exceeds 0.7, according to Zikmund et al. (2010) and Bryman and Bell (2011), the Cronbach’s alpha coefficient of 0.6 is still acceptable, which shows a fair reliability. In table 5, it is showed that the Cronbach’s alpha for three independent variables (e-satisfaction, e-trust and perceived value) all surpass 0.8, which indicates a very good reliability. Although the Cronbach’s alpha of the dependent variable e-loyalty is lower than three independent variables, it still exceeds 0.6. Therefore, all four variables tested in this research are demonstrated to be reliable and applied to the further analysis.

<table>
<thead>
<tr>
<th></th>
<th>Sat_mean</th>
<th>Tru_mean</th>
<th>Pv_mean</th>
<th>Loy_mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sat_mean</strong></td>
<td>1</td>
<td>0.505**</td>
<td>0.682**</td>
<td>0.510**</td>
</tr>
<tr>
<td><strong>Tru_mean</strong></td>
<td>1</td>
<td>0.517**</td>
<td>0.200**</td>
<td></td>
</tr>
<tr>
<td><strong>Pv_mean</strong></td>
<td>1</td>
<td></td>
<td>0.581**</td>
<td></td>
</tr>
<tr>
<td><strong>Loy_mean</strong></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**p<0.01

Table 6. Validity of all variables.

Moving to validity, 0.8 is used as the criteria to check whether the variables are too similar in the aforementioned context. Hair et al. (2010) suggested that the correlation value between two variables should fall between -0.8 and 0.8. Through the SPSS correlation analysis test, in table 6, it shows that the correlation between each variable
is less than 0.7. The data is therefore demonstrated to be high valid.

### 4.3 Multiple linear regression analysis

The multiple linear regression was used to test hypotheses. In the following multiple linear regression analysis table (Table 7), five models were included. The first model only contains control variables age and gender. For the model 2, 3 and 4, both control variables and one independent variable are included (e-satisfaction, e-trust or perceived value). In the last model, all variables are included. Meaning, two control variables and three independent variables are all involved in the model 5. The last model tested the whole conceptual model with multiple linear regression, which enables the researchers of this thesis to conduct a comprehensive analysis.

<table>
<thead>
<tr>
<th>Hypothesis Accepted/Rejected</th>
<th>Intercept</th>
<th>Model 1 Control</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5 All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Std. Error</td>
<td>Sig</td>
<td>Beta</td>
<td>Std. Error</td>
<td>Sig</td>
</tr>
<tr>
<td>Intercepts</td>
<td>0.188</td>
<td>0.000</td>
<td>0.475</td>
<td>0.000</td>
<td>0.398</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Control variables**

<table>
<thead>
<tr>
<th>Age</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.001</td>
<td>0.059</td>
<td>0.995</td>
</tr>
<tr>
<td></td>
<td>-0.041</td>
<td>0.051</td>
<td>0.569</td>
</tr>
<tr>
<td></td>
<td>-0.046</td>
<td>0.059</td>
<td>0.579</td>
</tr>
<tr>
<td></td>
<td>-0.103</td>
<td>0.048</td>
<td>0.128</td>
</tr>
<tr>
<td></td>
<td>-0.069</td>
<td>0.048</td>
<td>0.305</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.036</td>
<td>0.170</td>
<td>0.661</td>
</tr>
<tr>
<td></td>
<td>0.064</td>
<td>0.149</td>
<td>0.377</td>
</tr>
<tr>
<td></td>
<td>-0.036</td>
<td>0.166</td>
<td>0.653</td>
</tr>
<tr>
<td></td>
<td>-0.027</td>
<td>0.137</td>
<td>0.689</td>
</tr>
<tr>
<td></td>
<td>0.022</td>
<td>0.138</td>
<td>0.740</td>
</tr>
</tbody>
</table>

**Independent variables**
### E-satisfaction

<table>
<thead>
<tr>
<th>H1: E-satisfaction positively affects e-loyalty in e-retail context.</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Sig</th>
<th>0.523</th>
<th>0.080</th>
<th>0.000***</th>
<th>0.263</th>
<th>0.105</th>
<th>0.006**</th>
<th>Accepted</th>
</tr>
</thead>
</table>

### E-trust

<table>
<thead>
<tr>
<th>H2: E-trust positively affects e-loyalty in e-retail context.</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Sig</th>
<th>0.211</th>
<th>0.072</th>
<th>0.010**</th>
<th>-0.181</th>
<th>0.070</th>
<th>0.022*</th>
<th>Rejected</th>
</tr>
</thead>
</table>

### Perceived value

<table>
<thead>
<tr>
<th>H3: Perceived value positively affects e-loyalty in e-retail context.</th>
<th>Beta</th>
<th>Std. Error</th>
<th>Sig</th>
<th>0.599</th>
<th>0.075</th>
<th>0.000***</th>
<th>0.506</th>
<th>0.104</th>
<th>0.000***</th>
<th>Accepted</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>R²</th>
<th>0.001</th>
<th>0.264</th>
<th>0.044</th>
<th>0.349</th>
<th>0.391</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted R²</td>
<td>-0.012</td>
<td>0.250</td>
<td>0.025</td>
<td>0.337</td>
<td>0.371</td>
</tr>
<tr>
<td>Std. Error of the estimates</td>
<td>1.025</td>
<td>0.883</td>
<td>1.006</td>
<td>0.830</td>
<td>0.808</td>
</tr>
</tbody>
</table>
From the Model 1, one can see that the statistical significance of age and gender are 0.995 and 0.661 respectively. The significance of these two control variables are all higher than 0.5, which means that age and gender are not significant and do not influence the result. The adjusted R² showed that only 1.2% of e-loyalty is explained by age and gender. Because the control variables are not significantly related to e-loyalty, they were not used for further analysis.

Since the purpose of this thesis is to explain the relationship of e-satisfaction, e-trust and perceived value to e-loyalty and identify the strongest antecedent leading to e-loyalty, the authors of this thesis set three hypotheses and tested them in the model. In Model 5, the statistical significance of e-satisfaction, e-trust and perceived value are 0.006, 0.022 and 0.000 respectively. Since the accepted significance level of 95% was applied in this thesis, the values less than 0.05 are regarded to be significant. Thus, it shows that all these three independent variables are significantly related to e-loyalty, which enables the researchers to continue the hypothesis testing. When looking into the beta value of each independent variable, only e-trust got a negative number, which is -0.181. The beta value of other two independent variables (e-satisfaction and perceived value) were positive 0.263 and 0.506. Therefore, the H2 was rejected since the negative beta value shows a negative relationship. But H1 and H3 were accepted. Also, when comparing the absolute value of beta value of each independent variable, perceived value got the highest number 0.506, which indicated that perceived value is the strongest antecedent leading to e-loyalty. In the last model, the beta value of each independent variable also showed the extent of e-loyalty explained by different variables. 26.3% of e-loyalty is explained by e-satisfaction, 18.1% of e-loyalty is explained by e-trust, and 50.6% of e-loyalty is explained by perceived value.

Meanwhile, the adjusted R² showed the extent of e-loyalty explained by the model. The adjusted R² of Model 5 is 0.391, meaning, 39.1% of e-loyalty is explained by this model.
including all the control variables and independent variables.

According to the hypothesis testing through SPSS, the authors of this thesis drew the following conclusion, which presented in Table 8.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: E-satisfaction positively affects e-loyalty in e-retail context.</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: E-trust positively affects e-loyalty in e-retail context.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3: Perceived value positively affects e-loyalty in e-retail context.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 8: Hypotheses results
5. Discussion

In this chapter, the result of hypothesis testing was analyzed with the help of data calculated in the last chapter. All the hypotheses were explained and analyzed, but the emphasis was put on the rejected hypothesis.

According to the results from multiple linear regression analysis (Table 7), the results of H1 and H3 are in line with previous studies (Luarn & Lin, 2003; Audrain-Pontevia, N’Goala & Poncin, I, 2013; Arya and Srivastava, 2015), showing that e-satisfaction and perceived value positively affect e-loyalty in e-retailing industry. The result of H2 is contradicting towards many previous researches. A few researches debated regarding the significance of the relationship between e-trust and e-loyalty (Herington & Weaven, 2007; Rafiq, Fulford & Lu, 2013; Valvi & West, 2013), along with other researches that proved the positive relationship between e-trust and e-loyalty (For Example: Arya & Srivastava, 2015; Pitta et al., 2006; Kim et al, 2009).

H1 regarding e-satisfaction, which was considered as the basic antecedent leading to e-loyalty by the researchers of this thesis, showed the significantly positive relationship between e-satisfaction and e-loyalty in e-retailing industry as expected. The significance level of e-satisfaction was below 0.001, therefore the relationship between e-satisfaction and e-loyalty was highly significant. E-satisfaction is critically important since it is not only about product satisfaction (or post purchase experience) but about overall satisfaction. It exists in each step, from prior purchasing (information searching and comparing) to actual monetary transaction then to the post purchase experience (Kim et al., 2009). The beta value gathered for H1 was 0.263, which indicated a high positive relationship between e-satisfaction and e-loyalty. This result was consistent with studies presented by Anderson & Srinivasan (2003); Kim et al. (2009); Christodoulides & Michaelidou (2011) and Arya & Srivastava (2015), who found that e-satisfaction is one of the main antecedent leading to e-loyalty. Furthermore, among all the means of four variables, the mean of e-satisfaction was the highest, achieving...
5.62. This indicated that customers were overall very satisfied with their favourite e-retailers and thus developed a positive and loyal attitude to the e-retailers.

E-Trust was another powerful antecedent that the researchers included in the modified e-loyalty model. E-trust involves a certain level of confidence from customers regarding reliability and validity (Ribbink et al., 2004; Kim et al., 2009). The results gathered from the questionnaire implied that H2 was rejected and e-trust did not have a strong positive impact on e-loyalty. Standard deviation and the beta value helped the researchers to further analyze the results gathered. The results estimated the standard deviation of e-trust to be 1.146. In fact, e-trust had the highest standard deviation among other antecedents, which indicated that the data is distributed in a wider range of values rather than being centered around one value. Analyzing the high standard deviation of e-trust, it can be understood that the respondents had fairly confusing thoughts regarding the questions asked related to e-trust. This does not mean that the questions were irrelevant to H2, since the Cronbach’s alpha was estimated at 0.904 and determined the high relevancy of the questions asked regarding e-trust. But rather, the high standard deviation indicated that the respondents cannot fully develop e-trust only by the e-retailer’s claims and sayings regarding a product or service. Furthermore, analyzing the meaning of the value of beta coefficient is of importance. Although the significance level of e-trust was 0.022, meaning that e-trust was significantly related to e-loyalty. However, the value of beta was determined to be -0.181, which means that e-trust negatively affects e-loyalty. A beta coefficient of -0.181 also means that e-trust can explain 18.1% of e-loyalty and the rest was explained by other antecedents. This result was contradictory towards previous researches that emphasized on the positive relationship of e-trust towards e-loyalty (Park & Kim, 2003; Ribbink et al., 2004; Flavián et al., 2006; Pitta et al., 2006; Kim et al, 2009; Arya & Srivastava, 2015; Lee et al., 2000). Looking at the results gathered, the mean of e-trust was estimated to be 5.37 which was perceived as slightly positive, since in the seven-point likert scale, 4 is the estimation for neutral. This means that the respondents developed some form of e-trust regarding the e-retailer. This interpretation also suggested that e-trust is rather a
complicated antecedent that cannot simply be determined by what the e-retailers mention on the website regarding a product or service.

Last but not least, H3 was accepted according to the results gathered from the questionnaire. The significance level of perceived value was estimated below 0.001, meaning that the relationship between perceived value and e-loyalty was highly significant. Moreover, the beta value of perceived value was the highest among other two independent variables, which was 0.506. A beta value of 0.506 implied that in the e-loyalty model, 50.6% of e-loyalty was explained by perceived value. Since perceived value is defined as the evaluation of the value of give and the value of get (Parasuraman & Grewal, 2000), it is perceived that the respondents considered that the time and effort spent on the e-retail website was equal to what the e-retail website provided to the respondents (e.g.: product, experience and etc.). This result was in line with Khare, Khare & Singh (2012) and Arya & Srivastava (2015), who demonstrated that perceived value is the strongest antecedent of e-loyalty. Therefore, according to the data gathered in this thesis, perceived value can positively affect e-loyalty and was considered as the strongest antecedent leading to e-loyalty in the e-retailing industry. Meaning, among all three independent variables, perceived value was considered as the best tool to increase customers’ e-loyalty. Furthermore, the standard deviation of perceived value was the smallest, only 0.902. Namely, the difference between each datum and the mean of perceived value was small, meaning, the fluctuation of answer of perceived value was tiny.

All in all, the e-loyalty model was partly accepted in this thesis and only the hypothesis of e-trust was rejected. In addition, the adjusted R² for the whole e-loyalty model was 0.371, which means that this model only explained 37.1% of e-loyalty. Other 62.9% of e-loyalty was explained by other antecedents which were not included in this model.
6. Conclusion

According to the result analyzed in the last chapter, this chapter answered the purpose of this thesis and depicted a concluding statement.

In the past decade, loyalty in e-commerce context has been highly focused and discussed due to the rapid development of the Internet. Meanwhile, compared to the competition between brick-and-mortar, the competition between e-retailers is even more intense. Hence, the researchers of this thesis hope to help e-retailers identify the strongest antecedent leading to e-loyalty through testing the relationship between e-loyalty and its three antecedents (e-satisfaction, e-trust and perceived value). Namely, this thesis aims to help those e-retailer with limited sources to acknowledge and pay attention to the most important antecedent leading to e-loyalty.

Based on the findings of this thesis, e-satisfaction and perceived value were accepted to positively affect e-loyalty in e-retailing industry. Perceived value was demonstrated as the strongest antecedent that positively affects e-loyalty among other antecedents. However, the hypothesis about e-trust was rejected, which was contradicting towards many previous researches in which e-trust was demonstrated to have a positive relationship with e-loyalty.

Although the three antecedents selected were all proved to be important in previous studies, the e-loyalty model presented in this thesis only explained 37.1% of e-loyalty. Meaning, other 62.9% of e-loyalty is explained by other antecedents which were not included in this model. Therefore, e-loyalty can be identified as a complex concept that cannot be achieved by only a few number of antecedents. Even though this e-loyalty model only explained 37.1% of e-loyalty, it still implied the importance of these three antecedents (e-satisfaction, e-trust and perceived value) since all these three antecedents proved to be highly significant to e-loyalty. Thus, it is still important to include them in the future research.
7. Implications, limitations and future research

This chapter presented the managerial and practical implications of this thesis. Also, it shed light on the limitations that the researchers faced during the gathering of the thesis. Alongside, the researchers presented possible objectives for the future researchers.

7.1 Implications

This thesis contributes to the research of e-loyalty in many ways. First of all, it tested the positive relationship between e-satisfaction, e-trust, perceived value and e-loyalty in e-retailing context. Second, it provided a better understanding of relative importance among three antecedents that tested in this thesis. Since e-retailer not only need to consider the variety of antecedents of e-loyalty, but also need to judge the significance of various antecedents. Thus, this thesis also identified that perceived value is the strongest antecedent that leads to e-loyalty in e-retailing context. On the other hand, this thesis provided some practical implications as well. According to the result gathered, it helps e-retailers a better understanding of their online consumer. For instance, since perceived value works as the strongest antecedent, an e-retailer should emphasize on the reasonable price setting and product description, making customers perceive the value as high as possible.

To sum up, in order to enhance the effect of e-loyalty model, researchers and practitioners should focus on the variety of antecedents of e-loyalty as well as online consumers’ primary needs.

7.2 Limitations

The numbers of samples gathered for this thesis was 156 which was deemed to be an appropriate number according to the formula by Morgan and Wilson van Voorhis (2007). However, collecting a larger sample can increase the accuracy of the results. Another limitation was considered by the researchers of this thesis to be the formation of the questions in the questionnaire as well as the number of the questions. More in-
depth questions regarding the antecedents could present more detailed results regarding the attitudes of the respondents. Furthermore, the results regarding the reliability of e-loyalty were gathered. The results showed that even with high Cronbach’s alpha of the three antecedents, the Cronbach’s alpha of e-loyalty itself was 0.644. This number, although indicated reliability, it is not the strongest of other variables. A few studies such as Nolan & Heinzen (2011) and Hair et al. (2010) pointed out that low Cronbach’s alpha might be the result of the questions asked in regards to the certain variable being tested. For this thesis, questions were opposed completely based on previous researches, however, the lack of diversity of the questions in regards to e-loyalty was visible which in turn limited the results for this thesis.

7.3 Future research

Researchers of this study firstly recommend future researchers to include more antecedents to the e-loyalty model, since only three most researched antecedents have been included in this e-loyalty model. When looking at the adjusted R², which also indicated that 62.9% of e-loyalty is explained other antecedents. Therefore, adding more antecedents to this model to increase the efficacy of e-loyalty model is needed. Moreover, the researchers of this thesis highly recommend future researchers to dive deeper into the reasoning behind the negative beta for e-trust towards e-loyalty. Since the results unveiled the negative relationship between e-trust and e-loyalty, it was contradicting to previous perceptions of the researchers. With that in mind, the questions proposed in the questionnaire regarding e-trust worth a second look. The negative beta may have been caused by various factors, including the questions in the questionnaire, the industry that has been tested and so on.
Reference List


customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value. 


[Accessed 30 March 2018]


Vu, M.V. and Huan, H.H., 2016. The relationship between service quality, customer


Appendix A

The questionnaire

Title: Your Evaluation on E-Retailer

Hello. We are two Students from Linnaeus University and we are conducting our Bachelor's thesis in Marketing. Our thesis focuses on the antecedents/factors that can impact online loyalty (also known as e-loyalty). We hope that with your help, we can identify the most influential antecedents/factors and explain their impact on e-loyalty.

This survey will take roughly 2 to 3 minutes, and your answers will remain completely anonymous. You also have the right to quit the survey if you wish to do so. If you want to contact us regarding the process of the survey or if you simply have further questions, do not hesitate to contact us via email:
fa222hh@student.lnu.se, Farnoush Azizi
xw222ah@student.lnu.se, XiLu Wang
Thank you.

<table>
<thead>
<tr>
<th>Control Questions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you prefer to purchase products online?</td>
</tr>
<tr>
<td>Yes No</td>
</tr>
<tr>
<td>Have you purchased products from any e-retail website in the past three months?</td>
</tr>
<tr>
<td>Yes No</td>
</tr>
</tbody>
</table>

Notice!

If you have answered No for both questions above, you can quit the questionnaire by closing the website page. If you have answered Yes to any of the questions above, please continue with the survey.
### Loyalty towards e-retailer

What is the name of the e-retail website that you frequently shop?

Remember the name of the e-retail website you mentioned earlier. With that in mind, please answer the questions below from the scale of 1(Strongly Disagree) to 7(Strongly Agree). Scale 4 is natural.

#### E-Loyalty

<table>
<thead>
<tr>
<th>I visit this e-retail website more frequently than other similar e-retail websites.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I usually purchase products or services from this e-retail website.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I do not purchase products or services that often from the competitor of this e-retail website.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

#### E-Satisfaction

<table>
<thead>
<tr>
<th>I am very satisfied with the product/service offered by this e-retail website.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am satisfied with the purchase experience at this e-retail website.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am overall satisfied with this e-retail website.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

#### E-Trust
I trust what this e-retail website says about its products.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I trust the claims and promises this e-retail website makes about a product.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

This e-retail website is reliable.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Perceived value

Considering what I would pay for the product from this e-retail website, I will get much more than the worth of my time, effort and money (e.g.: the time you spent on searching, the effort of searching or comparing product and the money you paid for the product).
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Based on the overall evaluation, I consider this e-retail website to be valuable.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

The choices of products and/or services offered by the website are better than its competitor(s).
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Tell us a bit about yourself.

<table>
<thead>
<tr>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.   -20 yrs</td>
</tr>
<tr>
<td>2.   20-29 yrs</td>
</tr>
<tr>
<td>3.   30-39 yrs</td>
</tr>
<tr>
<td>4.   40-49 yrs</td>
</tr>
<tr>
<td>5.   50-59 yrs</td>
</tr>
</tbody>
</table>
6. 60-69 yrs
7. +70 yrs

<table>
<thead>
<tr>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Male</td>
</tr>
<tr>
<td>2. Female</td>
</tr>
<tr>
<td>3. Other</td>
</tr>
</tbody>
</table>

Thank you so much for your time. Your answers have been registered.