A Study about E-loyalty using the Bagozzi framework

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ABSTRACT

Purpose - The aim of this study is to explain two relationships: between e-loyalty and the emotional responses (e-trust and e-satisfaction) and between these emotional response and the appraisals (e-service quality and e-reputation).

Method – The quantitative approach and survey method were used in this study. Both Internet survey and personal survey method were used to administrate the questionnaire. The sample of 221 students was employed in this paper.

Finding – Using Bagozzi’s framework, the authors constructed the four relationships which were tested in this study. The result indicates the more satisfied customers feel about the purchase, the more loyal they become. In addition, when customers trust that the e-tailer is credible and benevolent, they tend to be more loyal. The finding also shows that the better service quality, the more satisfied customers feel about the purchase. Finally, the result indicates that the more reputed the e-tailer is in term of being honest and concerned to customers, the more customers trust in them.

Originality/value – This study is one of the limited number of study using Bagozzi’s framework to research e-loyalty. In addition, this study also tried to bridge the gap in research about e-loyalty using Bagozzi’s framework by taking e-trust and e-reputation into account.

Keywords: E-loyalty, e-satisfaction, e-trust, e-service quality, e-reputation, Bagozzi’s framework
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TERMINOLOGY

This section briefly defines the concepts that are used throughout the paper.

**Appraisal**

*A customer’s evaluation which is formed based on the interaction with the e-tailer*

**Brick-to-mortar**

*A classification of an organization that solely conducts business within the physical environment*

**Click-to-mortar**

*A classification of an organization that conducts business in the physical environment using the Internet as additional marketing channel*

**E-business**

*A type of industry where buying and selling products or services is conducted over electronic systems*

**E-tailer**

*One that sells goods or commodities to consumers only through the Internet*

**E-loyalty**

*A combination of repeated purchase behavior, favored attitudes and positive word-of-mouth towards an e-tailer*
E-satisfaction
[The extent to which a customer feels satisfied with the shopping experience of an e-tailer]

E-service quality
[The judgment and evaluation of customers about the shopping experience when they purchase from an e-business]

E-reputation
[The customer perception of how honest and how concerned the e-tailer is]

E-trust
[The customer belief in the credibility and benevolence of the e-tailer]

Emotional response
[The psychological reaction occurring in the mind of the customer]

Virtual company
[A classification of an organization that conducts business solely within the online environment]
1. Introduction

1.1. Background

After being commercialized in 1995, the Internet has had a revolutionary impact on business and consequently been the origin of e-business. Since the mid 90s, the e-business phenomenon has captured the attention of companies and led to significant changes in the ways of doing business (Li, 2007). E-business occurs when a firm creates superior value for customers by employing an electronic network and its related technology to improve, enhance and transform the business process and system (Sawhney and Zabin, 2001).

The organization has also changed during the development of e-business. Traditionally, a company operates as a brick-to-mortar organization, which implies that it only operates in the physical environment. After the introduction of the Internet, companies can either be classified as a click-to-mortar company or a virtual company. A click-to-mortar company is one that operates in a physical environment and uses the Internet as an additional marketing channel, for example Barnes & Noble. Virtual companies, on the other hand, only do business online, for instance Amazon.com (Turban et al, 2009). The diversion of organization types stems from the fact that globalization and intensive competition led to a decrease in effectiveness of doing offline business - thus companies were motivated to take part in e-business to enhance efficiency and profitability. In addition, from the perspective of the consumer, the cost of participating in e-business is lower; hence consumers have increasingly shifted their purchase behavior in favor of online shopping. These are the fundamental reasons why many companies decide to operate virtually or at least to be present on the Internet (Valvi and Fragkos, 2012). One type of a virtual company is an e-tailer which basically means an online retailer (Lim and Dubinsky, 2005).

Similar to the brick-to-mortar and click-to-mortar companies, virtual companies, in particularly e-tailers, strive for enhancing long-term profitability by building and maintaining brand loyalty since keeping existing consumers is more beneficial and less costly than attracting new ones (Valvi and Fragkos, 2012). Brand loyalty is a traditional concept which is at the center of marketing activities for companies that operates in the physical world due to the benefits of
having loyal customers (Da-Silva and Alwi, 2008). A high level of brand loyalty enhances the ability to charge premium price, reduce selling and marketing cost and create entry barriers to new companies (Reichheld, 1996). This concept has been adopted by virtual companies under the name of e-loyalty (Valvi and Fragkos, 2012). E-loyalty indicates the repeated purchase behavior which stems from favorable attitude of consumers towards an e-business (Anderson and Krinivasan, 2003). In contrast to the physical environment where scholars have used three major approaches to define brand loyalty: behavioral, attitudinal and integrated. In the context of e-business, scholars tend to favor the integrated approach when studying about e-loyalty (Oh and Park, 1997; Valvi and Fragkos, 2012). Behavioral loyalty indicates the repeated purchase behavior while attitudinal loyalty refers to a psychological involvement and a favored feeling toward an e-brand. Integrated approach views e-loyalty both behaviorally and attitudinally (Oh and Park, 1997).

1.2. Problem discussion

Building and maintaining a loyal customer base is considered to be a necessity for an e-tailer that seeks to remain competitive on the market (Lim and Dubinsky, 2005). It is considerably expensive to acquire customers online. Unless customers repeat their purchases from an e-tailer, it will be difficult to earn a profit from e-business. E-loyal customers are less price-sensitive and more willing to pay premium price than disloyal customers. They also bring new customers to the e-tailer through the word of mouth mechanism. In addition, the cost of serving existing customers is always lower than serving newly acquired customers (Reichheld, Markey and Hopton, 2000). Thus increasing e-loyalty is the main objective of virtual companies who want to enhance profitability and gain competitive advantages (Valvi and Fragkos, 2012). For e-tailers especially, the role of loyal customers is even more important due to the low-switching cost and fierce price competition online (Lim and Dubinsky, 2005; Solomon et al, 2010). That is the reason why the former CEO of Ebay, one of the biggest firms in e-tailing, said that e-loyalty is the key to success in an online operation (Reichheld and Schefter, 2000).

Creating and maintaining a loyal customer base is not an easy task, because the Internet gives customers the ease of comparing different aspects of different products or services (Alba et al, 1997). Moreover, millions of websites are joining e-business every month, making it an
intensively competitive market for e-tailers (Doong, Wang and Foxall, 2011). There are e-tailers that achieve significant success, for example Amazon.com (Lim and Dubinsky, 2005). On the other hand, there are many companies that have gone out of business (Hantula, 2004). Reichheld and Schefter (2000) states that the lack of e-loyalty will lead to the collapse of the whole business of an e-tailer. Therefore, Day (2000) suggests that maintaining e-loyalty will affect the survivability, the performance and the success of an e-tailer. Consequently, the failure of those companies might come from the problem of cultivating e-loyalty. One root of this problem is that the companies do not understand the mechanism that impacts on e-loyalty (Ribbink et al, 2004).

One way to research about this mechanism is to view e-loyalty as a behavior and use attitude theory as the research approach (Chang, Wang and Yang, 2009). Attitude theory proposes that the self-regulating process plays an important role in explaining the establishment of behavior. The self–regulating process can be described by Bagozzi’s appraisals - emotional responses - behavior framework in which appraisals are formed based on the interaction between the firm and customers while the emotional responses are the psychological reactions occurring in customer’s mind. There are two relationships in this framework: between appraisals and emotional responses and between emotional responses and behavior (Bagozzi, 1992). According to this framework, e-loyalty as a behavior relates to emotional responses. The emotional responses closely relate to the appraisals, which are the evaluations formed when the customers encounter with e-tailers. The relationship between appraisals and emotional responses should not be neglected in the research about e-loyalty. Therefore, in order to gain the full understanding about e-loyalty, the two relationships in the framework should be taken into account when researching about e-tailer (Chang, Wang and Yang, 2009).

According to Wolfinbarger and Gilly (2003), keeping customers satisfied with the purchase is the one of the most important factor determine the success of an e-tailer in building e-loyalty. Therefore, e-satisfaction (customer satisfaction towards e-business) is one of the most important emotional responses that the scholars need to take into account when researching about e-loyalty (Chang, Wang and Yang, 2009). However, satisfied customers still have the tendency to switch to competitors or stop purchasing from an e-tailer unless they trust the e-tailer. Therefore, e-satisfaction is necessary but not sufficient to build e-loyalty. E-trust (customer trust in e-business) is another important emotional response that needs to be brought to focus (Reichheld
and Schefter, 2000). Therefore, when researching about emotional responses which have relationships with e-loyalty, researchers should take into account both e-satisfaction and e-trust.

In an e-tailer context, e-service quality appears to be one of the most important appraisals of e-satisfaction because customers heavily depend on e-service quality to evaluate the purchase experience which in turn determines e-satisfaction (Cheng et al, 2008). The Internet facilitates and enhances the comparison between different offerings and thus e-service quality becomes an essence for e-businesses to differentiate themselves and achieve competitive advantages (Santos, 2003). E-service quality includes all the attributes that facilitates the customers shopping experience, for example shopping, product, support and delivery (Zeithalm, Parasuraman and Malhotra, 2002). On the other hand, e-reputation (the reputation of the e-business) is one of the crucial appraisals due to the online setting in the e-tailer context. In other words, when customers conduct online purchases, they have no direct contact to the e-tailer, thus e-reputation is one of several appraisals which can stimulate the emotional response of trust (Jin, Park and Kim, 2008). In this case, e-service quality and e-reputation are the appraisals that researchers should pay attention on when researching about e-satisfaction and e-trust as the emotional responses.

Even though Bagozzi’s framework was originally developed for psychological studies, previous researches prove the relevance and validity of applying Bagozzi's framework to research about loyalty both online and offline (Chang, Wang and Yang, 2009; Babakus, Bienstok and Van Scotter, 2004). There are not many studies in that Bagozzi's framework has been used to construct the conceptual framework about e-loyalty (Valvi and Fragkos, 2012). Therefore, this study can contribute the body of the literature about e-loyalty using Bagozzi's framework to construct the conceptual framework. Within the limited number of studies using this framework, the studies often only focus on e-service quality and e-satisfaction such as Chang, Wang and Yang (2009), Chang and Wang (2011) or Polites et al. (2012). However, as the argument above shows the importance of e-trust and e-reputation cannot be neglected in researching about e-loyalty. Therefore, there is a gap in the research about e-loyalty which takes into account e-trust as an emotional response and e-reputation as an appraisal. This study will try to fill in this gap by incorporating e-trust and e-reputation. Even though the relationships between e-service quality and e-satisfaction and between e-satisfaction and e-loyalty have been tested before, there is not much research where the Bagozzi framework is employed to conceptualize e-loyalty as
mentioned above. Therefore, the authors of this study decided to test these two relationships again using new sample in order to validate the relationships when using the Bagozzi framework approach.

1.3. Purpose

The aim of this study is to explain two relationships: between e-loyalty and the emotional responses (e-trust and e-satisfaction) and between these emotional response and the appraisals (e-service quality and e-reputation).

1.4. Outline of the study

After the first chapter, this thesis has seven chapters in which different components of the paper are presented.

- In Theoretical framework, e-loyalty is introduced first because it is the central concept of this paper. Following e-loyalty, the four other concepts are presented in the order: e-satisfaction, e-service quality, e-trust and e-reputation. In the next sub-chapter, the relationships between these concepts are presented and the hypotheses are proposed. This sub-chapter includes two sections: The relationship between emotional responses and e-loyalty and the relationship between the appraisals and the emotional responses. The five concepts are later incorporated into a model which shows the relationships between them and the hypotheses of the paper.

- The next chapter is Methodology which outlines the process of acquiring the data. The chapter includes nine sub-chapters: Research approach, Research Design, Data sources, Research strategy, Data collection method, Data collection instrument, Sampling, Data analysis method and Quality Criteria. In every sub-chapter the theory will be presented followed by the justification of the chosen method for this paper.

- In Survey result, the authors show the result of testing the fourth hypotheses using bivariate regression analysis. The results include a table that summarizes the obtained statistical figures, followed by a text explaining the results. The result of construct validity, concurrent validity and reliability is also presented in the end of the chapter.
- In Discussion and Interpretation, four sub-chapters are included: The relationship between e-satisfaction and e-loyalty, the relationship between e-trust and e-loyalty, the relationship between e-service quality and e-satisfaction, and the relationship between e-reputation and e-trust. In every sub-chapter, the results are interpreted and then discussed based on the theory in the Theoretical Framework chapter.

- Next, the authors made a conclusion for the whole paper with consideration to the purpose.

- The both managerial and theoretical implications are present in the next chapter: Research implications. In which, theoretical implication will propose how this paper contribute the current body of literature about e-loyalty while managerial implication will give practical overview concerning the findings of the paper.

- Finally, the limitation of the study is presented
2. Theoretical framework

2.1. The introduction of the researched concepts

2.1.1. E-loyalty

In the physical world, the concept of brand loyalty has been researched intensively with the emphasis on especially two dimensions: *attitudinal* and *behavioral loyalty*. These dimensions are also the two approaches that researchers employed to define brand loyalty. In addition, the third approach, namely integrated approach is also used to conduct research about brand loyalty. With respect to the attitudinal approach, researchers interpret brand loyalty from a psychological perspective. Therefore, attitudinal loyalty includes the psychological involvement, favoritism, the sense of goodwill towards a product, service or brand and positive word of mouth (WOM). On the other hand, the behavioral approach focuses on the repeated purchase behavior of consumers (Chaudhuri and Holbrook, 2001). The integrated approach views brand loyalty as an incorporation of both attitudinal and behavioral loyalty (Chang, Wang and Yang, 2009).

Within the context of e-commerce, the concept of brand loyalty has extended to a new concept called electronic loyalty (e-loyalty). Fundamentally, the underlying theoretical foundation of these two concepts is quite similar. However e-loyalty has its own unique characteristics due to the nature of e-commerce and the Internet (Gommans, Krishnan and Scheffold, 2001). Brand loyalty is characterized as product driven and market controlled while e-loyalty is distribution driven, consumer controlled and technologically facilitated (Schultz, 2000). The integrated approach which views loyalty as a combination of an attitudinal and a behavioral dimension is favored among researchers. Using this approach, Anderson and Srinivasan (2003) define e-loyalty as the favorable attitudes of consumers towards an e-commerce company. The consequence of this is repeated purchase behavior. Based on this definition, Chang, Wang and Yang (2009) developed the definition further incorporating WOM. According to Chang, Wang and Yang (2009), e-loyalty is described as the customer’s commitment which results in repeated purchase on a favored website and positive WOM that is generated consistently in the future.
Like brand loyalty, e-loyalty also has two dimensions: the behavioral and attitudinal loyalty (Gommans, Krishnan and Scheffold, 2001). E-attitudinal loyalty is reflected by the psychological commitment in term of a favored attitude and positive WOM toward an e-commerce firm. Apart from psychological commitment, e-loyalty is also manifested in the repeated purchase behavior from a particular website. The Internet facilitates making decisions and choices by enabling customer to obtain necessary information about a product in an adequate amount of time. Therefore, it is harder to achieve behaviorally loyal customer in the cyber world than in the real world (Gommans, Krishnan and Scheffold, 2001).

2.1.2. E-satisfaction

Electronic satisfaction (e-satisfaction) was discussed in great detail among scholars when researching about e-loyalty (Taylor and Strutton, 2010). The definition of e-satisfaction is taken from the subject of consumer satisfaction, which is the customers’ overall level of satisfaction after comparing between consumption outcomes and the expectation (Oliver, 1999; Anderson and Srinivansan, 2003). There are two perspectives to consider when researching about customer satisfaction: the economic perspective, which is associated with the economic performance and the non-economic perspective. The other perspective focuses on the psychological drives such as the fulfillment of the promise or the ease of the relationship between partners (Casaló, Flavián and Guinalíu, 2007). Besides, satisfaction can be conceptualized into two aspects: transaction specific satisfaction and cumulative or overall satisfaction. Transaction specific satisfaction indicates the emotional response resulting from the encounter with a specific service attribute in the transaction. Overall or cumulative satisfaction depends on all the encounter factors that occur over repeated transactions (Shankar, Smith and Rangaswamy, 2003). Within the online context, overall satisfaction is to be considered as a better indicator of e-loyalty than transaction specific satisfaction because it reflects the cumulative impressions of customers towards e-service quality (Chang, Wang and Yang, 2009). Therefore, e-satisfaction is defined as the overall customer contentment resulting from the previous buying experience whereby customers purchase from an electronic commerce company. This definition uses a non-economic perspective which focuses on psychological drives to view e-satisfaction. Purchase experience refers evaluation of purchased products and the interaction with the e-business through the website (Anderson and Srinivansan, 2003). The satisfaction towards an e-tailer is different from the satisfaction towards
a retailer because e-satisfaction is dependent significantly on not only the purchased products but also the process of conducting that purchase (Balabanis, Reynolds and Simitiras, 2006).

2.1.3. E-trust

As the concept of business online has gradually grown, it has become more important for e-tailers not only to enhance the technology of their websites but also to ensure that they evoke trust from their customers (Pavlou, 2003). Reichheld et. al (2000) find that trust, rather than price, is the most important factor for customers when deciding to purchase from an e-tailer. In the physical world, trust is traditionally conceptualized as the confidence in the quality and promises a firm offers (Garbarino and Johnson, 1999). Extending this conceptualization into e-business, e-trust is defined as the customer’s belief or confidence about the credibility and benevolence, meaning that customers can rely on the promises and information providing by the e-business and they are less likely to think that the e-sellers will take advantages of their vulnerability (Jin, Park and Kim, 2008). E-trust increases the customer’s belief that the e-business will not pursue any opportunistic behaviors such as sending defective products (Gefen, Karahanna and Straub, 2003). Similarly, Taddeo (2009) defines e-trust as a relationship in which an agent (in terms of the trustor) decides to depend on another agent’s (the trustee) foreseeable behavior in order to fulfill his expectations.

2.1.4. E-service quality

According to Santos (2003), e-service quality refers to the judgment and evaluation of customers about the shopping experience when they purchase from an e-business. In an electronic environment, e-service quality plays an important role in determining purchase decisions. When customers process a transaction with an e-tailer, they not only evaluate the products or offering but also how their needs are fulfilled and how the shopping experience as a whole. A customer’s online purchase experience consists of different sub-process such as searching and gathering the required information, evaluating the products, making the purchase decision, making the transaction, delivery of the goods, returning the products and customer service. All of these sub-process act as the components that together shapes the online shopping experience (Wolfinbarger and Gilly, 2003). When evaluating the shopping experience, customers tend to focus on the
experience as a whole which means the integration of different sub-processes rather every single one (Van Riel, Liljander and Jurriens, 2001). Shopping online offers a very wide selection of services and products for customers - almost every product can be found within a couple of minutes thanks to the modern search engines. The Internet facilitates and enhances the comparison between different offerings and thus e-service quality becomes an essence for e-businesses to differentiate themselves and achieve competitive advantages (Santos, 2003).

Due to the importance of e-service quality, many researchers within both the academic and the business field have conducted several studies to conceptualize and measure e-service quality (Zeithalm, Parasuraman and Malhotra, 2002). There are several scales developed by different scholars such as eSQ by Zeithalm, Parasuraman and Malhotra (2002), Webqual by Loiacono, Watson and Goodhue (2002) which concentrate on website quality or etailQ says Wolfinbarger and Gilly, (2003). Among these scales, etailQ focuses on measuring service quality in particular. The term etailQ does not focus on specific parts of the e-quality concept. Instead it constructs a model based on previous researches with a broad overview of all factors that are incorporated in e-service quality (Wolfinbarger and Gilly, 2003). The etailQ model breaks down e-service quality into four different dimensions: website design, fulfillment/reliability, privacy/security and customer service (Wolfinbarger and Gilly, 2003).

**Web-site design**

Website design provides the interface for an e-tailer and its customers (Kim and Lee, 2002). Its quality is crucial for the success of an e-business (Ranganathan and Grandon, 2002). Web-site design is the broadest of the four dimensions within the etailQ model and incorporates everything that influences the customer experience when using the web-page. This could be anything ranging from how aesthetically pleasing the customer find the page to be to how easy it is to navigate through and use. In addition, the features such as product selection and personalization are part of the web-site design. In other words, Web-site design is the total customer experience of using and observing the e-tailer´s web-page (Wolfinbarger and Gilly, 2003).
**Fulfillment and reliability**

Online shopping is generally considered as a convenient method for purchasing, but something that should be held in mind is that it involves shipping time. Therefore, handling and delivering the products becomes a crucial challenge for many e-tailers today (Rabinovich and Bailey, 2004). The factor of fulfillment and reliability measures in particular two things; if the customer received the product that they anticipated and if he or she got it delivered in the way that the e-tailer promised. If the customer get what he/she anticipated depends on how good the information concerning the product is on the web-site. Physical properties, features, customer reviews, pictures, and model IDs are all examples of the type of information that strives to help the customer to know what to expect. If the product is delivered the way that the customer expects depends on what promises the e-tailer have made. Time after order, condition, delivery notifications, total shipping fees are some examples that in the end will influence whether or not the customer is satisfied with the delivery of the product (Wolfinbarger and Gilly, 2003)

**Privacy and security**

One barrier that often prevents customers from shopping on the Internet is related to the risk of losing private and personal information such as credit card details. From the consumer’s perspective, conducting business with an e-tailer requires confidence that the e-tailer will ensure a high level of privacy and security (Hui, Teo and Lee, 2007). The level of privacy measures how confidential the customers interaction and purchases with the e-tailer is. This can include the protection of customer records and other saved information. The level of security measures how secure the customer feels when purchasing from the e-tailer. It is dependent on payment options and word of mouth among others. The e-tailer can also use third party payment functions that are already established and trusted like paypal, visa, trustbuy or banks to ensure security. Both the level of security and privacy affect the customer perception of e-trust and e-quality (Wolfinbarger and Gilly, 2003).
Customer service

This factor is a measurement of how responsive, willing and helpful the e-tailer is when the customers run into complications with the products offered or the web-site itself. It also encompasses how willing the e-tailer is to listen to criticism and recommendations concerning their market activities (Wolfinbarger and Gilly, 2003).

2.1.5. E-reputation

The firm’s reputation within the context of e-commerce, or in short e-reputation, is based upon the definition of reputation in an offline environment which is developed by Doney and Cannon, (1997). E-reputation refers to the customer’s perception about how honest the e-business is and how much they are concerned about their customer (Koufaris and Hampton-Sosa, 2004). However, a reputation is unstable since it changes during a company’s life span. It is harder for a firm to gain good reputation than lose it, because negative actions have greater influence on customer’s perception than positive actions has (Casaló, Flavián and Guinalíu, 2007). Customers believe that a company with a well-established reputation will act in accordance with their reputation in order to enhance it and avoid behaving in the way that is harmful to their reputation (Koufaris and Hampton-Sosa, 2004). As a result, customers will evaluate a well-known company in a more favored manner than a less known company (Jin, Park and Kim, 2008). In addition, customers are more likely to be reluctant to purchase from an e-tailer that they know little about. Therefore, good reputation is one of the most important assets of the e-tailer (Caruana and Ewing, 2010).

Standifird (2001) claims that the e-reputation can be considered as a kind of insurance for the e-business against the threat of losing customers to competitors. From the customer’s point of view, the involvement within an online transaction makes the customers perceive a higher level of risk. This is simply because it is associated with the need of providing personal information such as address, name and credit card details than in the offline environment. Therefore, a e-reputation with the characteristics of benevolence and honesty should be implemented in the minds of the customers to give them a sense of protection for contractual obligation (Saastamoinen, 2009; Battacherjee, 2002; McKnight, Choudhury and Kacmar, 2002).
Saastamoinen (2009) suggests that a review system of the web-site can enhance the e-reputation in terms of honesty. In addition, Odom, Kumar and Saunders (2002) claims that the e-reputation can be improved by offering fast shipping, traceability of purchased goods, and having generous guarantees and return policies. Having alternative ways for payment could also foster the e-reputation since some e-payments solutions such as PayPal provides the consumer with protection in its purchases from the web-page, (Odom et al., 2002). Borenstein and Saloner (2001) especially emphasize that a customer service offers an ease to the customer in contacting the e-business. An effective communication and consumer empowerment will contribute to build positive e-reputation.

2.2. The relationship between the concepts

Due to the fact that e-loyalty consists of behavioral and attitudinal aspect, it can be conceptualized using appraisals - emotional responses - behavior framework of Bagozzi (1992) (Chang, Wang and Yang, 2009). Among the emotional responses, e-satisfaction and e-trust are the most important response when researching about e-loyalty (Wolfinbarger and Gilly, 2003, Reichheld and Schefter, 2000). In addition, e-service quality has been argued to be one of the most important appraisals which relate to e-satisfaction (Cheng et al, 2008). Similarly, e-reputation is one of the crucial appraisals that relate to e-trust (Jin, Kim and Park, 2008).

2.2.1. The relationship between the emotional responses and e-loyalty

The relationship between e-satisfaction and e-loyalty

The relationship between e-satisfaction and e-loyalty has caught the attention of many scholars (Valvi and Fragkos, 2012). Chang, Wang and Yang (2009) claim that satisfied customers are more likely to repeat their purchase from an e-commerce company. Cristobal, Flavián and Guinaliu (2007) suggest that customers, who are satisfied with the purchase and believe that the e-commerce firm will behave the same in the future, will be more likely to form a long-term relationship with the firm. Consequently, during the time span of the relationship, the number of exchanges and the level of commitment increase. Thus, the higher level of e-satisfaction will be associated with the higher level of e-loyalty (Cristobal, Flavián and Guinaliu, 2007). Ribbink et al (2004) and Anderson and Srinivansan (2003) claim that satisfied customer is less likely to
search for alternatives and switch to competitors than a dissatisfied customer. Based on the results of the previous studies, it is reasonable to further predict that the level of loyalty is dependent on the level of satisfaction. Therefore, the following hypothesis is proposed in this paper.

_Hypothesis 1: E-satisfaction impacts e-loyalty positively._

### The relationship between e-trust and e-loyalty

According to Park and Kim (2003) the establishment of e-trust will in turn be closely related to the ability of retaining customers and thus make them loyal. Morrison and Firmstone (2000) recognize e-trust as a significant pre-requisite for purchasing online. Reichheld, Markey and Hopton (2000) in this way assert that an e-tailer that seeks to gain the loyalty of customers first and foremost must undertake efforts in gaining their trust. The findings from the study conducted by Reichheld, Markey and Hopton (2000) is furthermore supported by the arguments of Kim, Jin and Swiney (2009) and Urban, Sultan and Qualls (2000) who claim that trust has been considered as a critical component in retaining customers, since an online transaction often is perceived to be associated with a higher risk of losing personal information. Based on these studies, this research proposes the following hypothesis.

_Hypothesis 2: E-trust impacts e-loyalty positively._

#### 2.2.2. The relationship between the appraisals and the emotional responses

### The relationship between e-service quality and e-satisfaction

Customers heavily depend on e-service quality to evaluate a purchase experience which in turn determines e-satisfaction (Cheng et al, 2008). Cristobal, Flavián and Guinaliu (2007) claim that a higher level of e-service quality relates to a higher level of customer satisfaction when shopping online. Zeithaml, Parasuraman and Malhotra (2002) and Wolfinbarger and Gilly (2003) further argue that in an online setting, the customers can not have direct contact with the products or the sales-staff. Instead, they interact with the e-tailer through the website during the purchase. Therefore they evaluate the shopping experience based on services such as delivery time or the ease of using the website. This evaluation in turn forms the level of e-satisfaction in the
customer’s mind. Lee and Lin (2005) claim that high level of service quality creates benefits for customers. This can be explained by the fact that high e-service quality will make the shopping process easier and less time consuming. In this way, customers feel more satisfied with the online purchase (Yang and Fang, 2004). Based on the previous studies, customers form the level of satisfaction based on the assessment of the service quality of the e-tailer. Thus, the authors predict that the e-service quality influence e-satisfaction.

_Hypothesis 3: E-service quality impacts the e-satisfaction positively._

The relationship between e-reputation and e-trust

Regarding the relationship between e-reputation and e-trust, the result of a study by Jin, Park and Kim (2008) indicates that the more well reputed the e-tailer is, the more trustworthy it becomes. In another study specifically about e-tailing, Casaló, Flavián and Guinalíu (2007) found out that good reputation is the crucial prerequisite in gaining e-trust. Cheng and Barnes (2007) conducted a study focusing on e-trust and online buyer behavior, the findings show that a good e-reputation associates with higher e-trust toward an e-business. Similarly, the outcome of the study by Koufaris and Hampton-Sosa (2004) and Jarvenpaa, Tractinsky and Saarinen (1999) further explain that good e-reputation make customers feel more secured, thus customers have higher level of trust towards that firm. Based on these studies, the authors propose the following hypothesis:

_Hypothesis 4: E-reputation impacts on e-trust positively._
2.3. The conceptual framework

This research employed Bagozzi’s appraisals → emotional responses → behavior framework to construct the two research relationships: between e-loyalty and the emotional responses (e-satisfaction, e-trust) and between these emotional responses and the appraisals (e-service quality and e-reputation). Based on this frameworks and the previous research, regarding the first relationship, e-satisfaction is proposed to have positive impact on e-loyalty and similarly e-trust impacts e-loyalty positively based on the authors’ prediction. In the second relationship, e-service quality is predicted to have positive impact on e-satisfaction and e-reputation is proposed to have positive impact on e-trust. Four hypotheses are formed based on these relationships and reflected in the following model.

Figure 1 – The conceptual framework
3. Methodology

3.1. Research approach

3.1.1. Deductive versus inductive research

There are commonly two different types of approaches that researchers can use to conduct their studies: either the inductive and/or the deductive research method (Bryman and Bell, 2007). Within the frames for the deductive method, the researchers deduce a hypothesis based on what is known about a particular area and of theoretical background of that area. The hypothesis in its entirety will here consist of concepts which can be translated into researchable and operational items. When the hypothesis is formulated it will subsequently be subjected to an empirical collection with the underlying purpose of the researcher to assess whether the theory is valid or not. In other words, the deductive research refers to the process in which theory drives observation and the outcome of the study (Bryman and Bell, 2007).

Another approach to the relationship between theory and research is entitled as the inductive approach. In this approach, theory is the outcome of the research rather than the driver, which means that an inductive process always will result in a generalized conclusion out of observations. In some cases, researchers should be aware that some studies using inductive approach might end up with the empirical generalization (Bryman and Bell, 2007).

Justification

Based on the theory given above, the authors chose to approach the research problem of this paper by employing a deductive research. The deductive investigation is recognized as the most suitable since the authors - based on their literature review - found that e-loyalty is a well-established field in which many studies have been conducted during the past ten years. Thus, the aim of the authors is to test the established theories by deducing these theories to hypotheses which guided empirical data collection. In this way, the authors subsequently ended up with a conclusion providing them with a crucial insight for solving the research problem.
3.1.2. Quantitative versus qualitative research

Qualitative research and quantitative research approaches are usually referred to as two general orientations in conducting business research (Bryman and Bell, 2007). The qualitative research approach is the interpretive and naturalistic approach to the research topic. This approach is generally focused on words rather than numerical data (Denzin and Lincoln, 2011). It is often used to describe complicated situations where the connection between theory and research is somewhat ambiguous (Jha, 2008). In addition, it favors a loosely structured approach when collecting data. Thus it is less formalized in comparison to quantitative research. Qualitative researchers provide more descriptive details of the studied subject than quantitative researchers (Patton, 1990). The details are important in qualitative research because they show the conditions in which the behaviors take place. In this case, the qualitative research provides a deeper understanding of the studied subject. This approach is considered as subjective since the conclusion is not quantified and dependent on the belief and attitude of researchers. The qualitative research findings cannot be generalized because of the restricted scope of the study and the small number of entities that take part in the study (Bryman and Bell, 2007).

The quantitative research on the other hand, underlines the quantification in the collection and analysis of a set of data. In contrast to the qualitative approach, it rather involves the collection of numerical data and exhibits the deductive view of the relationship between theory and research (Malhotra and Birks, 2003). The quantitative research approach is considered as hypothesis testing research (Jha, 2008). Measurement is the most obvious characteristic of this approach and consequently, the outcome of the research will be measurable and presentable to that effect. Generalization is another characteristic of this approach which means that the researchers can generalize their findings in the particular condition that the studies are conducted (Bryman and Bell, 2007). In order to generalize the outcome, the study often contains a few variables which are examined across a large number of entities. In addition, the approach is more formalized and structured and the researcher has more control over the study than he or she normally would have within a qualitative research (Malhotra, 2008).
Justification

The quantitative research method was considered to be the most appropriate approach to employ in this study due to several reasons. First and foremost, the researchers used a deductive research approach to deduce the hypotheses from the theory in the theoretical chapter. Afterwards, these hypotheses were tested. Therefore quantitative research appeared as the most suitable approach for the research problem at hand. In addition, the quantitative research provides the authors with formalized and controlled means for making generalizations. The purpose of the authors was mainly to make a generalized conclusion about the four researched relationships, making quantitative research be an appropriate approach to employ.
3.2. Research design

The research design refers to the framework by which the marketing research is conducted. It consists of details of necessary procedures for getting information to solve the research problems. A good research design will enhance the efficiency and effectiveness of the research (Kothari, 2004). Research design is broadly classified as exploratory research and conclusive research. The following figure will demonstrate the classification of research designs (Malhotra and Birks, 2003).

![Figure 2 – A classification of marketing research design (Malhotra and Birks, 2003).](image-url)

Figure 2 – A classification of marketing research design (Malhotra and Birks, 2003).
Exploratory research is conducted when the researcher do not fully understand the problem. This design is flexible and versatile because research protocols and procedure are not used in this case (Malhotra, 2008). As the research progresses, researchers will find new ideas and insights along the way. Thus, the focus of the research might shift whenever the new insights emerge. On the other hand, the conclusive research focuses on describing a particular phenomenon, to test hypotheses or to scrutinize specific relationships. In order to fulfill this objective, the information used is required to be defined. It is more formal and structured than exploratory research. The chosen sample in this case is large and representative and the data is processed by quantitative analysis (Malhotra and Birks, 2003).

The differences between these two research designs are presented in the following table.
### Objectives
- **Exploratory**: To provide insights and understanding of the nature of marketing phenomena. To understand.
- **Conclusive**: To test specific hypotheses and examine relationships. To measure.

### Characteristics
- **Exploratory**: Information needed might be loosely defined. Research process is flexible, unstructured and may evolve. Sample are small. Data analysis can be qualitative or quantitative.
- **Conclusive**: Information needed is clearly defined. Research process is formal and structured. Sample is large and aims to be representative. Data analysis is quantitative.

### Findings/ results
- **Exploratory**: Can be used in their own right. May feed into conclusive research. May illuminate specific conclusive findings.
- **Conclusive**: Can be used in their own right. May feed into exploratory research. May set a context to exploratory findings.

### Methods

*Table 1- Differences between exploratory and conclusive research (Malhotra and Birks, 2003)*
As demonstrated in figure 1, the conclusive designs can be descriptive or casual (Malhotra and Birks, 2003). In particular, descriptive research is used with the purpose of describing market characteristics or functions. It is characterized by the prior formation of particular research questions or hypotheses. Therefore, the required information is clearly specified. As a result, descriptive research is planned in advance and structured (Kothari, 2004). Causal research is conducted when the researchers focus on obtaining the proof of cause-effect relationship. The aim of this research is to find out which variables that are the causes and which variables that are the effects. Causal research is pre-planned and structured like descriptive research. However, these two research designs are different in the level of control over the environment where the research is conducted. Descriptive research is studied in less controlled environment than causal research; as a result, a finding of this type of research can only determine the association between variables but not the causal relationship. In causal research, the effect independent variables have on dependent variables are controlled and checked as much as possible. The main method of conducting causal research is experimentation (Malhotra and Birks, 2003).

Furthermore, the descriptive research incorporates cross-sectional and longitudinal designs. Cross-sectional designs is the type of research in which the information is obtained from a given sample or population only once. There is also single cross-sectional design in which information is collected once from the only one sample drawn from the target population, or multiple cross-sectional designs in which the information is achieved once each from more than one sample (Malhotra and Birks, 2003). Longitudinal designs are the type of research where a particular sample or population is studied repeatedly over a period of time. In comparison to cross-sectional designs, longitudinal designs differ in the extent that they study only one or certain samples. Longitudinal designs provide an overall view of the phenomenon over time while cross-sectional designs are only interested in the insights of the phenomenon at a given point of time. Therefore, longitudinal study provides a deeper understanding of the situation and the changes occurring over time (Menard, 2007).
Justification

The conclusive research design was chosen as more appropriate than the exploratory design to employ since the topic of the study falls within a well-established field. The conclusive research design was furthermore chosen because the authors have the aim to test the hypothesis and examine the relationship rather than exploring. The needed information was specified based on the theory and hypotheses. Furthermore, the study aimed at making generalized conclusions based on studying a large sample. Therefore, the conclusive design was more appropriate than the exploratory design.

Within the conclusive design, the author chose to use descriptive research in the study rather than causal research. The first reason was that the study focuses on the impact of one variable on another variable rather than causality between the two. The purpose of the study is to explain the relationship which made descriptive research be the more appropriate design to use than casual design. In addition, the authors did not have interest in establishing an experiment to find the proof of cause-effect relationship. Rather, based on the purpose of this study, the main focus was on testing the hypotheses to find out whether there was a negative or positive impact of the independent variables on the dependent variables. In addition, the control of the authors over the variables was not strong enough to set up experimentation to conduct causal research. Due to these reasons, descriptive research was applied to this study.

The single cross-sectional research design was used in this study. The reason for choosing this research design was that the researchers were interested in finding the impact of one variable on another at the single point of time. The study does not focus on the changes of the impact over time, thus a longitudinal research design appeared to be inappropriate. Furthermore, between single cross-sectional design and multiple cross-sectional design, single cross-sectional design was chosen because the authors only study one set of sample from a population. The focus of the study was not investigating the different impacts between different sets of sample. Therefore, single cross-sectional was more suitable than multiple cross-sectional design.
3.3. Data source

There are two sources of data that researchers can use to solve their research problem: primary data and secondary data (Malhotra, 2008).

3.3.1. Primary data

Primary data refers to the data that is obtained on the particular purpose of addressing the research problem. There are several advantages and disadvantages when using primary data. Primary data is specific and tailored to fit the research problem and is up-to-date because it is collected during the research process. However, the process of collecting primary data involves high level of costs and is time-consuming. In addition, the researchers might face with the risk of non-response when collecting primary data (Malhotra, 2008).

3.3.2. Secondary data

Secondary data indicates that the data is collected for some purpose other than the problem that is studied by researchers (Frankfort-Nachmias and Nachmias, 1992). Secondary data can help the researchers to diagnose the research problem and redefine research problems in exploratory research. It provides an alternative source of data beside primary data and sometimes the researchers may find the solution for the research problem from this type of data. It can be combined with primary data to interpret the insights of the problem. Finally, the researchers can use secondary data to validate the findings of their studies. On the other hand, there are several drawbacks when using secondary data. It is limited by its level of relevance and accuracy since the data is collected for another purpose than solving the research problem. There might be a time lag between collection and publication, thus the data is not as up-to-date as primary data. In addition, the researcher might face lack of availability and insufficiency when using secondary data (Malhotra and Birks, 2003).

Justification

Primary data collection was selected for this study since it provided an advantage for the study. First and foremost, the primary data collection method was recognized as providing the authors
with the opportunity to get hold of information that is both tailor-made and extracted precisely for the given purpose of the study. The secondary data collection method was not chosen because this study adopts descriptive research rather than exploratory research. Thus, primary data was more suitable.

### 3.4. Research strategy

There are five major research strategies including *experiments, surveys, archival analyses, histories* and *case studies* (Yin, 2009). Experiment is a type of research strategy that is conducted with the purpose of falsifying, verifying or validating a hypothesis in which one or more variables are changed in order to observe if there is a different outcome. A survey is a research strategy that draws general conclusions by making statistical inferences of the data collected from a sample of a larger population. In addition, the general conclusion is applied to the whole population. Archival analysis is a form of observational study in which the researchers analyze accumulated documents or archives. History refers to another research strategy which focuses on collecting and analyzing historical documents. The final research strategy is the case study which involves the intensive analysis of a particular unit (a person, a company or an event). A case study examines the developmental factors in relation to the specific context and the relevant theory (Malhotra, 2008).

These five research designs differ from each other in three extents. These are; the type of research question, the level of control the researchers have over actual behavioral events and the orientation toward contemporary or historical events. The differences of the five research designs based on three conditions above are highlighted in the table below (Yin, 2009).
<table>
<thead>
<tr>
<th>Research strategy</th>
<th>Form of Question</th>
<th>Requires Control over Behavioral Events</th>
<th>Focuses on Contemporary Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experiment</strong></td>
<td>How, why?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Survey</strong></td>
<td>Who, what, where, how many, how much?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Archival analysis</strong></td>
<td>Who, what, where, how many, how much?</td>
<td>No</td>
<td>Yes/no</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td>How, why?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Case study</strong></td>
<td>How, why?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Table 2- Relevant Situations for Different Research Method (Yin, 2009)*

**Justification**

With background to the author’s choice to employ a quantitative research approach, the survey was chosen as the most appropriate strategy to use. In addition, the survey strategy was used since the authors want to generalize their conclusion which thereby requires a large sample. Finally, the authors wanted to test the relationship between the involved variables which further justifies the choice of a survey since this is the only strategy that is able to fulfill this purpose.
3.5. Data collection method

The data collection method is selected based upon the research strategy. In archival analysis, the most common data collection method used is content analysis. Similarly, researchers are more likely to use in-depth interview, focus group, content analysis, observation and triangulation (mixed method) in case studies while a survey is used in survey strategy. These methods have both advantages and disadvantages based on their usage in the study (Malhotra and Birks, 2003).

3.5.1. Content analysis

Content analysis is a technique that is used to analyze documents, texts and other forms of communication both objectively and systematically based on pre-determined categories. Content analysis is transparent, thus it enables replications and follow-up studies. It simplifies the process of conducting longitudinal analyses. This method is highly flexible and can be used for different types of unstructured information. In addition, information about social groups that are difficult to access can be generated using content analysis. However, this method also has drawbacks. The quality of the analysis depends on the authenticity, credibility and representativeness of the document. The result of the study is somewhat subjected to the inference of the researchers. It is hard to give a certain answer to the question “why” when employing content analysis (Neuendorf, 2002).

3.5.2. In-depth interview

In-depth interviews are unstructured or semi-structured, direct and personal interview in which the interviewee’s underlying motivation, beliefs, attitudes and feelings on a topic is probed by the interviewers. Like content analysis, this method also has both advantages and disadvantages. In-depth interview can discover the deep insights of the researched phenomena. It is easy to determine which answers belong to which respondents. There is no group pressure; therefore a free exchange of information takes place. It is easy to arrange because only one respondent is interviewed. However, the quality of information that can be derived is heavily dependent on the skill of the interviewer. Due to the length of the interview and the costs involved, the number of interviews is a few. The obtained data might be hard to analyze because of the risk of interviewer bias and social desirability bias (Malhotra and Birks, 2003).
3.5.3. Focus group

The focus group refers to an unstructured and natural discussion conducted by a moderator with a group of participants. Group discussion will produce a wider range of information, insights and ideas. Focus groups will lead to a bandwagon effect which means that a participant’s comment will lead to the reaction of other respondents. By these discussions, new ideas will be developed, justified and scrutinized. The excitement over the topic is increased when participants express their ideas and expose their feelings. Participants will be more open to reveal their thoughts when their opinions are similar to others. This method is flexible and the time for collecting data is quite fast since all the respondents are asked at the same time. However, it is easier to misjudge the result of focus group than other techniques because the particular direction of questioning and the findings can be influenced by bias. The quality of the discussion is dependent on the skill of the moderator and how well it is conducted. Focus groups are conducted with a small sample therefore the result cannot be generalized. The researchers might also face with the problem with arrangements, such as getting all participants all together at the same time (Kruegerand Casey, 2008).

3.5.4. Structured observation

Structured observation is another data collection method. In this method, the researchers observe and record the behavior following explicitly formulated rules which includes what researchers should look for and how to record the behavior. When overt behaviors are central, observation is more accurate and effective than a survey. Structured observation works best when it is combined with an additional method to probe the reasons behind a phenomenon. However, not all forms of behavior is appropriate to observe. Researchers might be faced with the risk of applying an irrelevant structured to the setting of the observation. It is difficult to derive the intention behind the behavior using structured observations. The obtained data contains many different fragments, thus researchers find it hard to link these fragments together to see the full picture. Another disadvantage of this method is that the researchers often neglect the context in which the behavior occur (Bryman and Bell, 2007).
3.5.5. Survey

Survey is the technique that is commonly used when researchers employ survey as the research strategy (Kothari, 2004). In a questionnaire, most of the questions require the respondent to choose from a set of predetermined alternatives. Questionnaire is simple to administer and the collect because the questions are mostly fixed-response. In addition, another advantage of this method is that it is rather simple to analyze and interpret the obtained data (Kelley et al, 2003). However, this method has several drawbacks that might affect the result of the study. Firstly, there is always the risk that respondents are not able or willing to give the desired information. Due to the nature of questionnaires, which consists of fixed response questions, there will be a lack of validity for certain types of information, such as belief or feeling. Finally, researchers might face the problem of formulating the questions appropriately. In other words, the language and the logic of the researchers are incorporated within the questions. There might therefore be cases that this logic is not meaningful and valid to respondents (Malhotra and Birks, 2003).

Survey method is classified based on the mode of administration. There are four major modes of sending the questionnaire: telephone method, personal method, mail method or electronic method (Malhotra, 2010).

- Telephone method can be conducted through traditional telephone or computer-assisted method. In this method, the researchers make a call directly to the respondent through telephone or the computer-assisted telephone. The data is recorded during the call. The main drawback of this method is that it consumes a greater amount of time and resources in comparison to the other methods (Malhotra, 2010).

- Personal method is conducted when the researchers interact face-to-face with the respondents. The questionnaire is collected after the interaction. This method involves high cost. However, it will ensure higher response rate (Malhotra, 2010).

- Mail method is another survey administration mode. The questionnaire is sent and returned by mail. The questionnaire is often sent with a message inviting the respondent to take part in the survey. This method is considered as time-consuming because of the time needed when sending and receiving the questionnaire (Malhotra, 2010).
- In the electronic method, the survey can be sent either through e-mail or on the Internet. Internet or web surveys are distributed via a website. The respondents are asked to complete the survey electronically on the website of the survey. The advantages of using Internet survey is that the questionnaire can be sent over a secured server to avoid the loss of data. The respondents’ answers can be accessed instantaneously. It is less costly and time-consuming than other methods. However, possible problems might occur when employing this method, for instance the bias when respondents participate more than once. The opposite problem would be low response rate. Overall, Internet survey can be considered as a more effective method than traditional methods due to the popularity of the Internet (Malhotra, 2010).

**Justification**

The data collection method that appears to be the most appropriate to employ in this study is the survey. The survey was mainly selected because that the authors conducted their study within the frames of a survey strategy and a quantitative research approach. This research aims at testing the hypotheses to arrive at a generalized conclusion. Among the four different administration modes, this study employed both a personal and a electronic method. Firstly, the electronic method is employed due to its advantages of being effective in collecting data which means that the researchers can obtain the answers faster than with other methods. The authors also minimize the risk of data loss in this method by using a trustworthy server when creating the questionnaire. However, as Malhotra (2010) mentions, there is a risk of low response rate when using this method. Therefore, the authors decided to employ a second method in order to obtain representative data. The personal method was used to ensure that sufficient amount of data was collected. This method was chosen over telephone or mail method because it is less time consuming and has high response rate.
3.6. Survey design

3.6.1. Operationalization and measurement of variables

According to Rouen (2005), the operationalization should provide an operational definition of the concept in order to transform it into measurable variables including particular observations.

In this paper, the operationalization process is conducted in accordance with 6 steps.

- The first step was obtaining a theoretical insight which means that the researchers reviewed the previous research about the chosen subject in order to get a deeper understanding of the topic. E-loyalty and the four variables that have impact on e-loyalty: e-service quality, e-satisfaction, e-trust and e-reputation were recognized to be the theoretical insight in this paper.

- The next step in the process involves the definition of key variables in which the conceptual definitions of the five concepts were provided based on the literature review.

- The conceptual definitions were thereafter followed by an operational definition which put the concept into the context of the study. In this case, the concepts were measured within the sample of the study- Linnaeus University students.

- In the subsequent step, the authors listed measures for the five variables based upon the known literature. The authors here compared the scales of several articles and chose to combine different scales to come up with the more exactly measuring instrument. For instance, e-trust was measured by the combination of three scales from Jin, Kim and Park, (2008), Koufaris and Hampton-Sosa (2004) and Jarvenpaa, Tractinsky and Saarinen (1999). There was only one scale used to measure e-service quality because the scale was developed specifically for the e-tailer concept and the number of citation of the article is high – 880 citations.

- When the authors have gained a theoretical insight and come up with a relevant list of measures for their variables, they pre-tested the scales in order to assess whether the scales measured the concepts of interest.
Finally, the data collecting instrument in the form of a questionnaire was designed with a layout that enhanced the understandability and clarity for the respondent. Questions were kept short and in a simple language. Within the details given to the respondent, the questionnaire was highlighted as a part of a thesis in which the data was used for academic purpose only. In this way, the authors wanted to make the survey appear serious and important for the respondent. The questions were arranged into five different categories which aligned with the five variables. The answers were presented horizontally to keep the questionnaire short and compact in order to avoid respondent’s exhaustion. No question about sensitive information such as income was included. There is a section of the questionnaire, customer service that was designed only for respondents who have used the customer service of the e-tailer such as returning items or contacting customer service personnel.
These outcomes of the first four steps are summarized in the table below:

<table>
<thead>
<tr>
<th>Concept</th>
<th>Conceptual definition</th>
<th>Operational definition</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E-loyalty</strong></td>
<td>The customer’s commitment resulting from repeated purchase from a favored website and positive WOM generated consistently in the future (Chang, Wang and Yang, 2009).</td>
<td>A measure that reflects e-loyalty in the context of students in Linneaus University - Favored attitude (Gommans, Krishnan and Scheffold, 2001). - Repeated purchase - Positive WOM (Chang, Wang and Yang, 2009).</td>
<td></td>
</tr>
<tr>
<td><strong>E-satisfaction</strong></td>
<td>The overall customer contentment resulting from the previous buying experience when customers purchase from an electronic commerce company (Anderson and Srinivansan, 2003).</td>
<td>A measure that reflects e-satisfaction satisfaction (Anderson in the context of and Srinivansan, 2003).</td>
<td></td>
</tr>
<tr>
<td>E-trust</td>
<td>A relationship in which an agent (in terms of the trustor) decides to depend on another agent’s (the trustee) foreseeable behavior in order to fulfill his expectations. Taddeo (2009)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-service quality</td>
<td>The judgment and evaluation of customers about the shopping experience when they purchase from an e-business. (Santos, 2003)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-reputation</td>
<td>Customer’s perception about how much the company is honest and how much they concern about their customers. (Koufaris and Hampton-Sosa, 2004)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3- The operationalization
3.6.2. Questionnaire design

In questionnaire design, the author will decide about the content of questions, the question structure and wording, the order of the questions, the form and layout and the method of sending the questionnaire (Malhotra, 2010).

Actual design of the questionnaire in this paper

Based on the scale developed by the acknowledged studies that is shown in the table above, the authors formed the questionnaire consisting of 53 questions to measure five different concepts (the detail of the questionnaire will be in the appendix 1). The seven point likert type scale with anchor ranging from “1-strongly disagree” to “7-Strongly agree” was used to measure e-reputation, e-trust, e-service quality, e-satisfaction and e-loyalty. The questionnaire was a compilation of already established questions from tested scales of previous researches. The motivation for doing this instead of constructing an entirely new scale was that the questions designed by the authors mentioned above fitted well with the papers purpose and had already been tested. In the first questions, respondents were asked to remember and give the name of the last website they shopped at. The following questions were organized into five sections.

- The first section included questions regarding e-reputation in which four questions (from question 1 to 4) from Koufaris and Hampton-Sosa (2004) were included. This section aimed at extracting information about the respondent’s perception about the reputation of the e-tailer in term of honesty and being concerned.

- In the next section, respondents were asked about the level of trust toward the website they shopped at. The first three questions (from question 5 to 7) were from the scale developed by Kim, Jin, Swinney (2009). The next two questions 8, 9 were from Koufaris and Hampton-Sosa (2004) scale and question 10 was from Jarvenpaa, Tractinsky and Saarinen (1999).

- The third section asked the respondents about their evaluation of e-service quality. Twenty nine questions (from question 11 to 39) under four dimensions: fulfillment, website design, customer service, privacy/ security were included in this section. The
questions were adopted from eQtail scale by Wolfinbarger and Gilly (2003).

- In the next section, the scale of Kim, Jin and Swinney (2009) and Anderson and Srinivasan (2003) was used with 5 questions in total (from question 40 to 44). The respondents were asked about the level of satisfaction towards their whole purchase experience.

- The final section is employed to ask about the respondent’s level of loyalty. The scales of Gommans, Krishnan and Scheffold (2001) and Chang, Wang and Yang, (2009) were used to measure the level of loyalty. There were nine questions (from question 45 to 53) in this section.

3.6.3. Pretesting

Pre-testing indicates the testing of the questionnaire on the small sample before the actual hand-out to find out and minimize potential problems. In this phase, respondents, usually the experts of the field or the members of the sample, are asked to evaluate to give feedbacks about the questionnaire. Based on these feedbacks, the researchers will decide whether or not to modify the questionnaire (Malhotra, 2010).

**Course of action**

The questionnaire used in this paper had went through two versions before being used. The first version had 54 questions regarding E-service quality, E-satisfaction, E-reputation, E-trust and E-loyalty. To test the first version of the questionnaire, it was sent to 10 respondents from the chosen sample frame. These respondents where asked to comment on the questionnaire after they had completed it. Two things emerged from their comments. Firstly, 2 respondents felt that there was slightly too many questions. Secondly, 5 respondents commented that several questions were similar to each other. This comment was expected by the authors of this paper. To include questions that were similar to each other was deliberate choice that aimed to test the consistency in the answers from the respondents. The first version of the questionnaire was also sent to teachers and professors with special knowledge of the subject of this paper. Four experts were contacted. The advice given by them was to change the instructions of how to fill in the
questionnaire. They also advised to skip certain questions and to add a questions regarding price and delivery fees.

The second version of the questionnaire contains 53 questions and was modified in accordance to the feedback received, except for removing the questions that the respondents found similar. The authors argued that having consistent and reliable data is worth the risk of aggravating some respondents. The second and final version of the questionnaire can be viewed in appendix 1.

3.7. Sampling

Once the researcher has decided upon the fundamental factors that together will form the structure of the thesis, he or she should decide upon a source that will provide the information that is best suited for the investigation of interest. In this context, the researcher basically has two approaches to choose between: either through the use of the information source in terms of a census or a sample. Whereas a census source involves an investigation of every single corner of the population, a sample refers to the subgroup of the population that is selected for the participation in the study (Malthotra, 2011).

The sample is the chosen information source in this paper due to several reasons. Firstly, the authors had limited access to the whole population; therefore it will be beneficial to only focus on a representative sample. As long as the authors ensure the representation of the sample, they could make a generalized conclusion from the drawn sample. Thus, even though this paper only employ sample, the authors attempted to ensure the representability by choosing suitable sample size.

The sampling procedure consists of three steps: defining the population, choosing sampling frame and sample size (Malhotra, 2011).

3.7.1. Defining the population

The first step in the sampling procedure involves the definition of the population. More specifically this step is where the researchers are supposed to clarify which group of people that will provide relevant information for solving the research problem. A population refers to the
people that share some common set of characteristics and that comprise the group that is of interest for the purposes that aims at solving the research problem (Malhotra, 2010).

The authors have accordingly with this first step decided to focus on the population of students at Linneaus University in Vaxjo. The students at Linneaus University in Vaxjo were chosen since the authors assume students to be people that are frequent Internet shoppers and therefore makes up a potential source for extracting information. Another reason that students are chosen is that students are supposed to have sufficient skill and knowledge in making purchases online. They are potential customers for many companies in the future. The number of students of Linnaeus University in Vaxjo campus is around 7000 (Linnaeus University, 2013).

3.7.2. Sampling frame

The subsequent step in the procedure is that of the sampling frame – or sampling list – where the researchers consider where they are able to draw on information from the population of interest. The sampling frame could be defined as a representation of the elements of the target group and consists of a list or set of directions identifying the target population of the study. Telephone books, an association directory that is listing the firms within an industry, social media forums etc. make up common examples of sampling frames that are employed by researchers (Malhotra and Birks, 2003).

With respect to the thesis, Facebook was recognized as a potential sampling frame for administering the questionnaire since the authors mostly have the contact with the students through this platform. Other sampling frames used in this paper were the school and the library where the students spend time in, and which therefore makes them to be the suitable forums for getting the contact with the member of the population.

3.7.3. Sampling selection and data collection procedure

Sampling selection

In order to select a sample, the researchers have to determine upon what sampling technique they will employ. There are in particular two different sampling techniques that the researcher will have to choose between. These are in turn broadly classified as either of the non-probability or
probability nature. In this case, non-probability sampling will rely on the personal judgment of the researcher in contrast to the probability sampling where the sample is selected by chance. Convenience sampling belongs to the former category of non-probability and is usually employed by a researcher that seeks to obtain a sample of convenient elements. Often, respondents will here be selected because they simply happen to be in the right place or at the right time (Malhotra, 2010).

The next step in the process of sampling involves the researcher’s determination of which size of sample he or she is going to extract information from. The sample size refers to the number of elements that is intended to be included within the study. Deciding upon a sample size is critical since it in the end will provide the researcher with an indicator of how generalizable the results will be to the larger population of interest – generally speaking, an increased sample size will bring about a greater precision (Malhotra, 2010).

The chosen sampling technique in this paper is non-probability in which the sample members were chosen by chances. The convenient sample was further chosen due to its flexibility and timing efficiency. In previous research on e-loyalty with consideration to one of these element: e-trust, e-reputation, e-service quality and e-satisfaction using survey as the method, the sample size was around 200. The study of Kim, Jin and Swiney (2009) which has the citation number of 69 used the sample size of 182. Another study by Balabanis, Reynolds and Simintiras (2006) with the citation number of 138 had the sample size of 192. Koufaris and Hampton-Sosa (2004) research which has higher citation number 476 employed the sample of 212. The research of Jin, Park and Kim (2008) (56 citations) had the sample of 192 while in the study of Chen and Barnes (2007) the sample was only 103 while the number of citation is 210. Therefore, the authors decided to use the sample of 221 which is considered as the rational number within their affordability.

**Data collection procedure**

In this paper, the electronic method was used to administrate the data collection process. It means that the authors used an Internet survey to conduct the questionnaire. The questionnaire construct of this paper was distributed to the respondents via the Google survey. The authors
decided to use Google survey due to several reasons. Google survey is free of charge to use. It also has all options and customization features needed for the research method of this paper. Google survey offers the option to transfer the data directly into SPSS, which simplifies analysis of the data. Another reason for choosing Google survey was its favorable reputation of security and reliability. Technical problems could have led several set-backs, for example: data loss, data corruption, data theft or inaccessibility to complete the survey for the respondents. Finally, a major reason for using Google survey was its ease-of-use interface. This made constructing the questionnaire easy for the authors, and it also made it easy to fill out correctly for the respondents.

The Google survey questionnaire was distributed through Facebook. A Facebook event (a digital invitation service available at Facebook) was created where the authors invited people that are in the chosen sample of this study. The invitation included instructions of how to fill out the questionnaire and what the data would be used for. This technique of collecting data digitally was not as effective as expected and only about half of the respondents needed filled out the questionnaire.

To remedy this, the authors switched to the personal method to collect the remaining data needed. The authors collected this data at Linnaeus University from throughout May 7th 2013 until May 10th 2013. This method proved to be a helpful alternative, and within the timeframe set a total number of 221 respondents was collected.

### 3.8. Data analysis

#### 3.8.1. Data preparation

The data preparation process is conducted before data analysis. There are five steps in this process which includes: checking questionnaire, editing, coding data, cleaning data and selecting analysis strategy (Malhotra, 2010).

The first step in this process is questionnaire checking which means that the authors check for the acceptability of the questionnaire in term of completeness (Ghauri and Gronhaug, 2005). In several cases, the questionnaire will be considered as uncompleted or unacceptable including if
only a part of a questionnaire is answered, the respondents do not follow the instructions, the answers has little variance or the questionnaire is answered by someone who is not from the sample (Malhotra, 2010).

The next step in this process is editing in which the questionnaires will be reviewed to identify illegible, incomplete, inconsistent or ambiguous responses. Answers are illegible when they are poorly recorded, like in a case that the questionnaire consists of numerous unstructured questions. Questionnaires are considered as incomplete when many questions remain unanswered. In unstructured questions, the answers are ambiguous when ambiguous words or abbreviations are used. Unsatisfactory responses will be discarded if they only make up for less than 10 percent of the sample (Malhotra, 2010).

Then, data is coded which means that a code is assigned to each response of each questions. In case the questionnaire consists of structured question, it is pre-coded. When the data is coded, a data file will be developed to record the data. SPSS is the statistical program that researchers can use for entering and analyzing the data (Ghauri and Gronhaug, 2005).

Data cleaning is the next step in which the missing responses are treated. There are two methods of treating missing responses: substitute a neutral value in which the mean response of the variable is replaced in the missing responses and substitute an imputed response in which the estimated value from the interpretation of the author about the others answers will be filled in the missing answers (Malhotra, 2010).

Finally, the researchers will select the data analysis strategy in which the choice of the statistical technique is critical. There are two types of statistical techniques: univariate technique and multivariate technique. Univariate techniques are suitable to apply when there are one or several measurements of an element; however each variable is analyzed separately. Multivariate techniques are appropriate to use when the author want to discover the simultaneous relationships between different phenomena. This technique involves two or more measurements on each element and the variables will be analyzed at the same time. In multivariate techniques, there are two identical technique groups: dependence techniques and independent techniques. Dependence techniques can be used when one or more variables are dependent while the rest is
independent. Independent techniques are applied when the variables are not identified as either dependent or independent. In dependence techniques, if there is only one variable, cross-tabulation, regression, logit analysis or conjoint analysis can be employed (Hair et al, 2010).

**Course of action:**

After collecting the questionnaires both on the Internet and from pen and paper form, all the questionnaires are checked by the authors. The total number of questionnaire achieved is 221, however 9 questionnaires are discarded, including questionnaires that have many missing answers, the website listed in question 1 is not a e-tailer for example H&M.com, the answers are the same or has little variance. Thus, the author used 212 questionnaires for extracting data for this paper. Due to the fact that the questionnaires contain mostly structured questions, the level of illegible or ambiguous answer was low when the authors conducted the editing phase. All the unsatisfactory responses are discarded because they are less than 10 percent of the sample. Due to the nature of structured questions, the questionnaire is pre-coded in form of the seven-grade scale used. The data is then entered into SPSS to provide material for the analysis. In the data cleaning phase, the authors chose to replace the missing responses with the mean answer of the variable because the mean is more accurate than the imputed value based on the subjective inference from the other answers. Finally, the author chose to use multivariate techniques because the purpose of this paper is to find out the 4 relationships: between e-service quality and e-satisfaction, between e-satisfaction and e-loyalty, between e-reputation and e-trust and between e-trust and e-loyalty. Dependence techniques are further chosen because there are both dependent and independent variables in this paper.

3.8.2. **Data analysis**

When the data was prepared, the researchers conducted the analysis. Data analysis involves hypothesis testing in terms of either examining the association or examining the differences. There are several techniques used to examine a association, such as cross-tabulation, correlation analysis or product moment correlation and regression. In examining the difference, some technique can be applied are analysis of variance (ANOVA) or analysis of covariance (ANCOVA) (Malhotra, 2010).
Regression analysis

Regression analysis indicates a flexible procedure for analyzing the association between one dependent variable and one or more independent variables. It determines if there is an existing relationship between these variables. In addition, it shows the strength of the relationship which means the variant degree of the dependent variable can be explained by the independent variable. It also shows the form of the relationship between these variables as well as it predicts the values of the dependent variable. Regression only reflects the degree of association between variables and does not imply any causal relationship. When the correlation between two variables (one dependent and one independent variable) is concerned, the bivariate regression or simple regression is used. It will show the mathematical relationship between these variable in form of an equation (Malhotra, 2010). When more independent variables are used to predict one dependent variable, multiple regression is applied (Ghauri and Gronhaug, 2005). Within simple or bivariate regression, there are two types of regressions the researchers can run: simple linear regression or curvilinear regression.

There are several statistics and statistical terms that are used in bivariate regression analysis. The first term is known as Pearson correlation coefficient, r (Malhotra, 2010). The Pearson correlation coefficient has the values from -1 to +1 in which the value of -1 shows the perfectly negative correlation while the value +1 shows the perfectly positive correlation between the variables. In positive correlation, the closer the 1, the stronger the tendency that one variable increases, the other variable also increase. In addition, the correlation coefficient which is close to zero means that the variables are unrelated (Ghauri and Gronhaug, 2005). Coefficient of determination, $r^2$, measures the strength of the association. It varies from 0 to 1 and reflects how much the variation in one variable is contributed by the variation of another variable. The closer the $R^2$ to 0, the weaker the relationship is. In contrast, when $R^2$ is closer to 1, the relationship is stronger. Standardized regression coefficient is also known as beta coefficient which indicates the slope achieved by the regression of one variable on another variable when data is standardized (Malhotra, 2010).
A test of statistical significance

Analysts use a test of statistical significance to assess how confident they can be that the result from their study is generalized to the population from which this sample is drawn. When taking into account the statistic significance in terms of relationships between two variables, it shows the risks of concluding that a relationship exists within the population, when in fact there is no relationship in the population. In business research, the accepted level of statistic significance is less than 0.05 (p<0.05). This figure means that there are fewer than 5 chances in 100 that the sample reflects the relationship while no relationship exists within the population. When p<0.05, the hypothesis is supported (Bryman and Bell, 2007).

Course of action

Due to the purpose of this paper which focuses on reveal the impact of one variable on the other, regression analysis was used. The hypotheses concerned about the relationship between variables rather than the differences. Therefore, regression analysis was more suitable than ANOVA or ANCOVA. In this case, bivariate regression was used rather than multiple regression because there is one dependent and one independent variable in every hypothesis. The simple linear regression was run to test the hypothesis. All the statistical terms and figures including Pearson correlation coefficient, coefficient of determination, beta coefficient and statistical significance were reported in survey result.

3.9. Quality Criteria

There are mainly three prominent criteria’s for evaluating the quality of business and management research in terms of: validity and reliability. These criteria are commonly used by both a quantitative and a qualitative researcher as a yardstick against which the use and trustworthiness of the study are assessed (Bryman and Bell, 2011).

3.9.1. Content (face validity)

The content validity – also called face validity – relates to a subjective but still systematic evaluation how well a measurement construct’s components actually represent the concept
(Malhotra, 2010). A researcher who develops a new measure should make sure that it has face validity. The researcher will be able to get an indicator of the face validity by initially conducting an operationalization whereby the researcher defines fuzzy concepts and describes how the measurement is related to the concept of interest. As a second step, the researchers conduct a pre-testing which involves asking people with either experience or expertise within the field to judge or determine whether or not the measure – on the face of it - seem to reflect the concept concerned. By allowing experts and potential respondents from the sample of interest to assess the representativeness of a measure before the main data collection takes place, the researcher is enabled to get an indicator of how well the measure at a subsequent step will provide information concerning the concept (Bryman and Bell, 2011).

The content (face) validity within the thesis was considered as the authors undertook a combination of an operationalization, a pilot-testing and an observation of previous research. When the authors had defined each concept and its belonging measures, they would proceed the pre-test by asking different experts and students with experience within the field to evaluate whether the questions that subsequently would make up the actual questionnaire, were measuring what they were intended to measure. This study employed the scales that were developed and tested by previous researches to ensure the face validity.

### 3.9.2. Construct validity

The construct validity refers to the extent to which an operationalization distinctly measures the concepts that it is intended to measure. The construct validity is normally derived by statistically assessing whether the different study concepts are not correlating too highly with each other. This is commonly entitled to as correlation analysis and the researcher should seek to have a reasonable correlation (Malhotra, 2010). According to Hair et al. (2010), the reasonable correlation between different variables is achieved when the Pearson correlation coefficient is less than -0.8 and less than 0.8. When the correlation is too high, it indicates that there is the risk that researchers measure the same concept but using different words (Hair et al., 2010).
In this paper, the authors ensured the construct validity by comparing the Pearson correlation coefficient with the standard by Hair et al. (2010). In this way, the authors would avoid the issues of measuring a same concept using different words.

### 3.9.3. Criterion (concurrent) validity

According to Bryman and Bell (2011) criterion (concurrent) validity can be referred to the extent to which an operationalization is able to predict how constructs perform as expected in relation to other variables. In other words, criterion validity is an indicator of the truthfulness of the hypothesis that has been formulated by the researcher in the study. The criterion validity is often assessed through a statistical significance testing whereby the researchers are seeking to evaluate the usefulness of the concepts and thereby indirectly the hypotheses that they are testing. The value of the statistical significance should be not lower than 0.05 in order for the hypothesis to be treated as ‘statistical significant’ and thus accepted (Muijs, 2004).

The criterion (concurrent) validity was taken into account when the authors undertook the statistical significance testing using the program SPSS. The statistical significance then would be compared to the accepted level (less than 0.05). In this case, the authors would evaluate the criterion validity based on the number of hypotheses that were accepted.

### 3.9.4. Reliability

The reliability is generally seen as another important criterion when it comes to assessing the quality within a research. Reliability is often discussed as the stability and consistency of a concept measurement and acts as the underlying condition for validity. The two most common ways of assessing the reliability within a quantitative research are a test-retest method and the Cronbach’s alpha coefficient examination (Bryman and Bell, 2011). The test-retest method involves a process from which the researcher gets the opportunity to evaluate the degree of correlation by administering a test or measure in one occasion and then re-administering it on the sample of interest on another occasion. In order to secure reliability within the research, the researchers should then expect to find a high correlation between observation 1 and observation 2 (Bryman and Bell, 2011). Cronbach’s alpha coefficient is a numerical measure of internal consistency (reliability) that shows how closely related a set of items are as a group. The Alpha
Coefficient ranges in value from 0 to 1 and may for example be employed to describe the reliability of factors from multi-point formatted questionnaires or scales (Muijs, 2004). Within business research, the accepted level of the Cronbach’s alpha is more than 0.6 and when the alpha is more than 0.7, the scale is highly reliable (Hair et al., 2010).

The reliability within this study was secured by examining the Cronbach’s alpha obtained from SPSS. This decision was primarily because it is more time-efficient when using Cronbach’s alpha than conducting test-retest method. The Cronbach’s alpha would be compared to the accepted level according to Hair et al. (2010). In other words, the researchers would have the reliability in their study if the Cronbach’s alpha for every variable is higher than 0.6.
4. Survey result

4.1. The relationship between the emotional responses and e-loyalty

4.1.1. The relationship between e-satisfaction and e-loyalty

The result from running *bivariate regression analysis* to test the first hypothesis, e-satisfaction has positive impact on e-loyalty, is represented in the following table:

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R-square</th>
<th>Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship</td>
<td>.421a</td>
<td>.178</td>
<td>.421</td>
<td>.000</td>
</tr>
<tr>
<td>between e-satisfaction and e-loyalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3- The result of regression analysis of the relationship between e-satisfaction and e-loyalty

The result from these three tests shows the statistical significance of .000 which is less than .005. With this level of significance, the first hypothesis is accepted according to Bryman and Bell (2007). The Pearson correlation (R) is .421 which is higher than 0, meaning that these two variables are related according to Malhotra (2010). In addition, the r >0 shows that the correlation is positive (Ghauri and Gronhaug, 2005). The Pearson correlation also shows a fair tendency that when e-satisfaction increases, e-loyalty also increases. The R-square is found to be .178 which is closer to 0 than 1 (Bryman and Bell, 2007). The R-square also shows that the variance of e-satisfaction can explain 17.8% of the variance of e-loyalty. Based on this R-square, e-satisfaction is a fairly weak predictor of e-loyalty as well as the relationship of e-satisfaction and e-loyalty is fairly weak. The beta is .421 showing a positive relationship between the independent variable- e-satisfaction and the dependent variable- e-loyalty.
4.1.2. The relationship between e-trust and e-loyalty

The result from running bivariate regression analysis to test second hypothesis, e-trust impacts e-loyalty positively, is represented in the following table:

<table>
<thead>
<tr>
<th>R</th>
<th>R-square</th>
<th>Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship between e-trust and e-loyalty</td>
<td>.392a</td>
<td>.154</td>
<td>.392</td>
</tr>
</tbody>
</table>

a. Dependent Variable: E-loyalty
b. Predictors: E-Trust
N=212

Table 4- The result of regression analysis of the relationship between e-trust and e-loyalty

The authors observed the statistical significance for hypothesis three and found it to be at the value of .000 within every test that was conducted. The value fall within the accepted level of statistical significance in business research which is less than 0.05. Therefore, the hypothesis is accepted by examining the significance level. The Pearson coefficient indicates a value of .392 which convinces the authors of an existing positive correlation between these two variables. The Pearson correlation also shows a fairly weak tendency that when e-trust increases, e-loyalty also increases. The coefficient of determination $R^2$ shows a value of .154 which indicates a weak correlation between e-trust and e-loyalty. In other words, the result shows the likelihood that a change in e-loyalty can be predicted by e-trust at the rate of 15.4%. In other words, e-trust is a fairly weak predictor of e-loyalty and its relationship with e-loyalty is weak. The beta is .392 showing a positive relationship between the independent variable- e-trust and the dependent variable- e-loyalty.
4.2. The relationship between the appraisals and the emotional responses

4.2.1. The relationship between e-service quality and e-satisfaction

The result from running bivariate regression analysis of third hypothesis, e-service quality impacts e-satisfaction positively, is represented in the following table:

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R-square</th>
<th>Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship between e-service quality and e-satisfaction</td>
<td>.589^a</td>
<td>.347</td>
<td>.589</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 5 - the result of regression analysis of the relationship between e-service quality and e-satisfaction

From this table, the significance is less than .05 which is at the acceptable level. Thus, the first hypothesis is accepted according to Bryman and Bell (2007). This test shows the relationship between e-service quality and e-satisfaction, it also show how strong this relationship is (Bryman and Bell, 2007). The data from the respondents questioned in this paper give a Pearson correlation coefficient value of +0.589 which is about in between 0 and +1. This value shows that there is a positive correlation between e-service quality and e-satisfaction according to Malhotra (2010). In addition, the Pearson correlation coefficient also shows a fair tendency that when e-service quality increases, there is an increase in e-satisfaction. The regression test based on the answers from the respondents give an R-square value of 0.347. This value says that 34.7% of the respondent’s level of e-satisfaction can be predicted by their experience of e-service quality. In this case, e-service quality is a fairly weak predictor of e-satisfaction and this
relationship is quite weak. The beta is found to be ,589 which again shows the positive correlation between these two variables when e-satisfaction is treated as dependent variables.

4.2.2. The relationship between e-reputation and e-trust

The result from running *bivariate regression analysis* of fourth hypothesis, e-reputation impacts e-trust positively, is represented in the following table:

<table>
<thead>
<tr>
<th>R</th>
<th>R-square</th>
<th>Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The relationship between e-reputation and e-trust</td>
<td>,529&lt;sup&gt;a&lt;/sup&gt;</td>
<td>,280</td>
<td>,529</td>
</tr>
</tbody>
</table>

Table 6- *The result of regression analysis of the relationship between e-reputation and e-trust*

According to Bryman and Bell (2007), the hypothesis is accepted because the statistical significance is at ,000 which is less than ,005. The Pearson correlation is found to be ,529 which shows the positive correlation between the variables (Ghauri and Gronhaug, 2005). The Pearson correlation also shows a fair tendency that when e-reputation increases, e-trust also increases and vice versa. The R<sup>2</sup> is reported to be ,280 which refers to the fact that a change in e-trust can be explained 28% by e-reputation. In this case, e-reputation is a weak predictor of e-trust and the relationship between these two variables is weak. The beta is ,529 which shows that the relationship is positive when e-trust is the dependent variable.
Summary of the survey result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1: E-satisfaction impacts e-loyalty positively</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hypothesis 2: E-trust impacts e-loyalty positively</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hypothesis 3: E-service quality impacts the e-satisfaction positively</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hypothesis 4: E-reputation impacts on e-trust positively</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 7- The results of the hypothesis testing

4.3. Research quality

4.3.1. Construct validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>E-reputation</th>
<th>E-trust</th>
<th>E-service quality</th>
<th>E-satisfaction</th>
<th>E-loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-reputation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-trust</td>
<td>.530**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-service quality</td>
<td>.495**</td>
<td>.583**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-satisfaction</td>
<td>.459**</td>
<td>.601**</td>
<td>.583**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>E-loyalty</td>
<td>.310**</td>
<td>.392**</td>
<td>.560**</td>
<td>.422**</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed), N=212

Table 8- The correlation between five constructs
In order to evaluate the construct validity of the paper, the authors strived to ensure that the construct measures the concept that it supposes to measure. To achieve this validity, the Pearson coefficient was examined. According to Hair et al (2010), a reasonable correlation has a Pearson coefficient which is less than -0.8 or less than 0.8. From the tables above, the Pearson correlation coefficients was less than 0.8. Thus, the construct validity in this paper was ensured.

4.3.2. Concurrent validity

In order to evaluate the truthfulness of the hypothesis that has been formulated by the researchers behind the study, the concurrent validity is used in this research. The level of concurrent validity is sufficient because all the measures of researched concepts are taken from previous research that has been peer-reviewed and used multiple times for empirical research. Additionally, the findings yielded from this paper show the same results as the previous research used for the theoretical background of this paper. Finally, all the hypotheses in this paper are accepted which ensure the concurrent validity.
In the reliability, the cronbach’s Alpha is presented for each of the variable.

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<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
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<tr>
<td>E-loyalty</td>
<td>0.811</td>
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<tr>
<td>E-satisfaction</td>
<td>0.792</td>
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<tr>
<td>E-service quality</td>
<td>0.881</td>
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<tr>
<td>E-trust</td>
<td>0.790</td>
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<tr>
<td>E-reputation</td>
<td>0.714</td>
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*Table 9 – The results of reliability test*

The stability and consistency of a concept’s measurement is assessed based on the reliability test. The Cronbach’s alpha is examined to evaluate the reliability of this research. According to Hair et al (2010), the level of accepted reliability is when the Cronbach’s alpha is more than 0.6. In this case, the Cronbach’s alpha is more than 0.7, the used scale is highly reliable. For the first variable e-loyalty, the Cronbach’s alpha is 0.811 which is more than 0.7. Thus, the scale used to measure this variable is highly reliable. Similarly, the Cronbach’s alphas of other variables- e-satisfaction, e-service quality, e-trust and e-reputation are found to be more than 0.7. In this case, the research achieves more than acceptable reliability based on the found Cronbach’s alpha.
5. Discussion and Interpretation

5.1. The relationship between the emotional responses and e-loyalty

5.1.1. The relationship between e-satisfaction and e-loyalty

This paper views e-loyalty as a concept consisting of behavioral and attitudinal dimensions. In other words, e-loyalty is the combination of repeated purchase behavior, positive attitude and positive word of mouth towards an e-tailer (Chang, Wang and Yang, 2009). On the other hand, the authors used a non-economic perspective to research e-satisfaction. Therefore, it is defined as the overall customer contentment resulting from the previous buying experience when purchasing from an e-business. Purchase experience refers to the evaluation of the product and the interaction with the e-business through the website (Anderson and Srinivansan, 2003). When integrating this construct to Bagozzi’s framework, e-satisfaction is considered as an emotional response. The authors formed the first hypothesis stating that e-satisfaction (the emotional response) impacts e-loyalty (the behavior) positively. The result from the test shows that this hypothesis is accepted. A higher level of satisfaction will lead to a higher level of e-loyalty. More explicitly, when the customers are satisfied with the received product and the interaction with the e-tailer through the website, they tend repeat their purchase, have positive attitude and talk about this purchase positively to other people.

This finding aligns with the results of previous studies about this relationship which the researchers based the hypothesis on, such as Cristobal, Flavián and Guinaliu (2007), Ribbink et al (2004) and Anderson and Srinivansan (2003). This finding can be explained by the fact that the customers who are satisfied with the purchase and believe that the e-commerce firm will behave the same in the future (Cristobal, Flavián and Guinaliu, 2007). In addition, satisfied customers are less likely to search for alternatives and switch to another firms (Ribbink et al, 2004). Therefore, they will be more likely to form a long-term relationship with the firm. Consequently, during the time span of the relationship, the number of exchanges and the level of
commitment increase (Cristobal, Flavián and Guinaliu, 2007). Therefore, e-satisfaction has the positive impact on e-loyalty.

The result also shows that e-satisfaction is a fairly weak predictor of e-loyalty. Only 17.8% percent of e-loyalty can be predicted based on e-satisfaction. In other words, the relationship is weak. This finding does not confirm the previous studies stating that e-satisfaction is the determinant of e-satisfaction such as the study from (Wolfinbarger and Gilly, 2003) and (Chang, Wang and Yang, 2009).

5.1.2. The relationship between e-trust and e-loyalty

As the concept of business online has gradually grown, it has become more important for e-tailers not only to enhance the technology of their websites but also to ensure that they evoke trust from their customers (Pavlou, 2003). In this paper, e-trust is defined as the customer’s belief or confidence about the credibility and benevolence of the e-business. The belief in the credibility means that customers can rely on the promises and information provided by the e-business. The belief in the firm’s benevolence means that customers are less likely to think that the e-business will take advantages of their vulnerability (Jin, Park and Kim, 2008). E-trust is considered as an emotional response which relates to the behavior - e-loyalty using Bagozzi’s framework. Based on this construct, the second hypothesis addressing the positive impact that e-trust (the emotional response) has on e-loyalty (the behavior), was formed. The survey result shows that this hypothesis is accepted after being tested by bivariate regression analysis. The finding indicates that a higher level of trust leads to a higher level of e-loyalty. In other words, when customers believe in the promises and the information given by an e-tailer and think that that e-tailer will not that advantages of their vulnerability, they tend to be more loyal to that e-tailer.

This finding appears to be consistent with the finding of Park and Kim (2003) who states that e-trust closely relates to the ability of retaining customers and thus in turn makes them loyal. The impact can be explained by the fact that online transaction often is perceived to be associated with a higher risk, therefore customers tend to be loyal to the e-tailer that they trust (Urban, Sultan and Qualls, 2000). E-trust increases the customer’s belief that the e-business will not
pursue any opportunistic behaviors such as sending defective products. So customers will be confident in doing business with the e-tailer and they become more loyal (Gefen, Karahanna and Straub, 2003).

However, the study outcome shows that e-trust is a fairly weak predictor of e-loyalty and its relationship with e-loyalty is weak. This does not confirm with previous studies about this relationship in term of the strength of the relationship. Morrison and Firmstone (2000), Reichheld, Markey and Hopton (2000), Kim, Jin and Swiney (2009) and Urban, Sultan and Qualls (2000) agree that e-trust has been considered as an critical component in building e-loyalty. Even though, the proposition that e-trust impacts e-loyalty is accepted, which inclines with previous research findings, the strength of the relationship resulting from the test are somehow not as strong as in previous researches.

5.2. The relationship between the appraisals and the emotional responses

5.2.1. The relationship between e-service quality and e-satisfaction

In this paper, e-service quality is defined as the judgment and evaluation of customers about the shopping experience when they purchase from an e-business (Santos, 2003). A customer’s online purchase experience consists of different sub-processes such as searching and gathering the required information, evaluating the products, making the purchase decision, making the transaction, delivery of the goods, returning the products and customer service. Therefore, when customers evaluate the shopping experience online, they not only evaluate the products or offering but also how their needs are fulfilled and how the shopping experience is (Wolfinbarger and Gilly, 2003). In addition, customers in an online environment tend to judge the experience as a whole rather than evaluating a single sub-process. Therefore, the researchers in this paper employed a scale which reflects four dimensions to measure e-service quality. The four dimensions include website design, fulfillment/reliability, privacy/security and customer service (Wolfinbarger and Gilly, 2003). In this paper, e-service quality is considered as the appraisal in Bagozzi’s framework which is formed when customers conduct their purchase and interaction with the e-tailer. Using this construct, the author proposed a relationship between e-service
quality (the appraisal) and e-satisfaction (the emotional response). The outcome shows that the hypothesis stating that e-service quality impacts e-satisfaction positively is accepted which means that when e-service quality increases, e-satisfaction also increases. More explicitly, customer’s judgement about the shopping experience is high; the customers tend to be more satisfied with their purchase.

This finding confirms the results of previous studies such as Cristobal, Flavián and Guinaliu (2007), Zeithaml, Parasuraman and Malhotra (2002), Wolfinbarger and Gilly (2003) and (Yang and Fang, 2004). The impact that e-service quality has on e-satisfaction can be explained by Zeithaml, Parasuraman and Malhotra (2002)’s and Wolfinbarger and Gilly (2003)’s argument stating that in an online setting, the customers can not have direct contact with the products or the sales-staff. Instead, they interact with the e-tailer through the website during the purchase. Therefore they evaluate the shopping experience based on the services such as delivery time or the ease of using the website. This evaluation in turn forms the level of e-satisfaction in the customer’s mind. Furthermore, good e-service quality can create extra benefits for customers, for instance, a website that is easy to purchase from helps customers to save their time (Lee and Lin, 2005; Fang and Yang, 2004). Therefore, customers feel more satisfied when the e-tailer provides better e-service quality.

From the result of the study, the authors also can see that e-service quality is a fairly weak predictor of e-satisfaction and this relationship is quite weak based on the R-square value of 0.347. This result seems to not support the result from Chen et al (2008) stating that customers heavily depend on e-service quality to evaluate the purchase experience which in turn determines e-satisfaction.

5.2.2. The relationship between e-reputation and e-trust

Standifird (2001) claims that the e-reputation can be considered as a kind of insurance for the e-business against the threat of losing customers to competitors. Good reputation is one of the most important assets of the e-tailer (Caruana and Ewing, 2010). In this paper, e-reputation refers to the customer’s perception about how honest the e-business is and how much they are concerned about their customers (Koufaris and Hampton-Sosa, 2004). Within the scope of Bagozzi’s
framework, e-reputation is considered as an appraisal which relates to e-trust, an emotional response. Based on this framework and the previous research outcomes, the authors proposed the hypothesis stating that e-reputation (the appraisal) has a positive impact on e-trust (the emotional response). The result shows that this hypothesis is accepted. The more reputed the e-tailer is in term of being honest and concerned to customers, the more customers trust in them.

Whether there is a relationship between the reputation of an e-tailer and its prospects of incorporating trust in its customers has for long been a topic subjected to research. Previous studies undertaken by different scholars have demonstrated that that the reputation of an e-tailer has a positive impact on what the level of trust turns out to be among the customers (Koufaris and Hampton-Sosa, 2004; Jarvenpaa, Tractinsky and Saarinen, 1999; Jin, Park and Kim (2008). This finding supports the previous studies about the relationship between e-reputation and e-trust. In order to explain this relationship, Koufaris and Hampton-Sosa (2004) state that people believe that a company with a well-established reputation will act in accordance to enhance their good reputation and avoid behaving in the way that is harmful to their reputation. This belief comes from the fact that people think that it is harder for a firm to gain good reputation than lose it (Casaló, Flavián and Guinalíu, 2007). When taking into account the risk of involving in online purchase such as the loss of detail of credit card, the e-reputation with the characteristics of benevolence and honesty will give customers a sense of protection for contractual obligation (Saastamoinen, 2009; Battacherjee, 2002; McKnight, 2002). As a result, customers will evaluate a well-known company in a more favored manner than a less known company (Jin, Park and Kim, 2008). In addition, customers are more likely to be reluctant to purchase from an e-tailer that they know little about (Caruana and Ewing, 2010). Therefore, customers will trust the firm with good reputation more than the unknown firm or the firm with negative reputation.

Regarding to the strength of the relationship, the R-square value of 0.28 shows that e-reputation is a weak predictor of e-trust and the relationship between these two variables is weak. Even though, e-reputation impacts on e-trust positively, this weak relationship doubts the statement that good reputation is the crucial prerequisite in gaining e-trust from Casaló, Flavián and Guinalíu (2007) study.
6. Conclusion

The purpose of this paper is to describe two relationships: firstly between emotional responses and e-loyalty and secondly the appraisals and the emotional responses based on Bagozzi’s appraisals - emotional responses - behavior framework. In this paper, e-loyalty is recognized as a behavior. E-satisfaction and e-trust are the emotional responses while e-service quality and e-reputation are the appraisals. When researching about the first relationship, the relationship between e-satisfaction and e-loyalty and the relationship between e-trust and e-loyalty were taken into account. Regarding the second relationship, the relationship between e-service quality and e-satisfaction together with the relationship between e-reputation and e-trust were examined. Based on these relationships, four hypotheses were formed. All four hypotheses proposed in this paper were accepted according to the survey result.

The authors found out that e-satisfaction have a positive impact on e-loyalty. In other words, the more satisfied customers feel about the purchase, the more loyal they become. In addition, when customers trust that the e-tailer is credible and benevolent, they tend to be more loyal. The finding also shows that the e-service quality has positive impact on e-satisfaction. This means that the better service quality, the more satisfied customers feel about the purchase. Finally, the result indicates that customers will trust the e-tailers with good reputation more than the less reputed e-tailer. These findings support the previous studies stating that these four relationships exist. However, when it comes to the strength of the relationship, four relationships were found to be weak in this study which somehow do not support the previous studies which found the strong relationships between these variables.
7. Implications

7.1. Theoretical implication

In this study, the authors used Bagozzi’s framework to construct the relationship between the variables. Even though this framework is employed widely when researching about brand loyalty (loyalty in offline setting), there are not many studies using this framework in e-loyalty research (Valvi and Fragkos, 2012). Therefore, this study will enhance the body of literature about e-loyalty which use Bagozzi’s framework. The authors also suggest future researcher consider to use this framework in e-loyalty studies.

The results of this paper also confirm and strengthen the results of previous researches concerning the four relationships: e-satisfaction – e-loyalty, e-trust – e-loyalty, e-service quality – e-satisfaction and e-reputation – e-trust. However, when it comes to the strength of the relationship, the findings of this paper somehow do not support the previous studies, which had results showing that these four relationships are strong. Therefore, the researchers suggest that future research should take into account the strength of the relationships to find out whether there is a change in the strength of the relationships. Further, if there is a change, the causes of this change could be an interesting subject to conduct researches about. Taking e-trust as an example, the authors found out that several scholars claimed this variable to be the most important in forming loyal customers. However, the result shows that the relationship between e-trust and e-loyalty is weak. The reason behind it might be that online shoppers are starting to take this aspect for granted. As have been stated in the problem discussion, the market gradually becomes more competitive, and in order to survive the e-tailer need to provide a certain level of trust that make customers comfortable enough to do business with them. Therefore, as a direct consequence of the market development, the factors that create trust have become standardized which means that customers take it for granted whenever they shop. In this case, trust might not enhance loyalty as it did in the past when there were fewer players in the market. Therefore, the impact of trust on e-loyalty reduces in the contemporary and developing e-market. In other words, it no longer acts as a strong pre-requisite for creating a competitive advantage. The results of this paper can thus be used as a base for further research of predictors of e-loyalty with perhaps additional variables.
This research only chose two appraisals and two emotional responses to study. Future researches could study more appraisals and emotional response to create a fuller picture about e-loyalty. This study used regression to test the relationships separately, the result only reflect the impact of one variable on another. Therefore, future researchers can replicate this study but using Structural Equation Modeling to test for the causal relationship and also can research about the indirect relationship between e-service quality, e-reputation and e-loyalty.

### 7.2. Managerial implication

From a managerial point of view, the results of this paper show suggestions to what projects that should receive the most resources when striving to impact e-loyalty. For example this paper found that e-trust relates to e-loyalty weakly while e-satisfaction has a stronger impact on e-loyalty. Managers should therefore prioritize the e-satisfaction level of their customers more than customer’s level of e-trust. However, e-trust should not be neglected completely because it still impacts e-loyalty positively. So in order to build e-loyalty, the e-tailer should still take into account both e-satisfaction and e-trust, but allocate more resources for e-satisfaction.

In addition, the study result also points out that when the e-tailer wants to enhance customer satisfaction. They should put effort in improving their service quality. Similarly, the level of trust can be enhanced by marketing activities which aims at promoting the honesty and customer-oriented aspect of the e-tailer.
8. Research limitation

There are several limitations of this research that the scholars should take into account when reviewing the findings of this paper. Only two emotional responses were incorporated into the model, thus the findings cannot fully reflect the variables that influence e-loyalty to the full extent. Due to the complexity, the authors do not take into account the indirect relationship between the appraisals and e-loyalty. This leaves room for future researches.

Another limitation could be that the study focuses on e-tailers in general not on any website in particular. This means that the findings should be interpreted in cautious manner that respects the difference between nations, industries or product categories. For instance, a clothing e-tailer might have different characteristics than a book e-tailer. Thus, the research outcome is limited when it comes to specific industry, product categories or even different level of risk perceived by customers.
Reference list


Linnaeus University, 2013

Lnu.se <accessed on 2013-05-24>


Appendix 1 – The questionnaire

Hi and thank you for participating in this survey. We are a group of student in Linnaeus University and this survey is a part of our thesis. Your answers will be handled anonymously and used for academic purpose only.

Our study is about online retailer, which refers to a website that sells products ONLY online and not in physical stores, for example Amazon.com or Adlibris.com. Think of an online retailer that you have shopped at more than 3 times.

What is the name of this website

Based on the experience of shopping at this site, please answer the following questions

**Question about your opinion about the reputation of the website**

1/ I think the website I shopped at is well known

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Strongly disagree   Strongly agree

2/ I think the website I shopped at has a good reputation

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Strongly disagree   Strongly agree

3/ I think the website I shopped at has a reputation for being honest

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Strongly disagree   Strongly agree

4/ I think the website I shopped at is known to be concerned about customers

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Strongly disagree   Strongly agree

**Questions about your level of trust towards the website**

5/ I trust what this website says about its products

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Strongly disagree   Strongly agree

6/ I trust the claims and promises this website makes about a product

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Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

7/ I trust this website to keep my best interests in mind

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

8/ I trust that this company will keep promises it makes to me

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

9/ This website has more to lose than to gain by not delivering on its promises

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

10/ This website is reliable for online shopping

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

Questions about the website design

11/ The design and layout of the website make it easy to search for products

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

12/ The search function on this website gives me useful results

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

13/ It is fun to shop at this website

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

14/ This website is visually appealing

1 2 3 4 5 6 7

Strongly disagree [ ] [ ] [ ] [ ] [ ] [ ] Strongly agree

15/ This website has good selection
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**16/ This website almost says “come in and shop”**

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**17/ This website has a wide variety of products that interest me**

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**18/ I can go to exactly what I want quickly**

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**19/ This website’s appearance is professional**

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**20/ This website provides in-depth information**

<p>| | | | | | | |</p>
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**21/ The level of personalization at this site is about right, not too much or too little**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**22/ This website does not waste my time**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**23/ It is quick and easy to complete a transaction at this website**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
### Questions about your level of fulfillment and reliability when shopping at this website

24/ The product that I got was described accurately by the website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25/ This website use good pictures to create an accurate image of its products

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

26/ I find customer reviews helpful when deciding to buy from this website or not

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

27/ This website keeps me updated with the availability of the products it offers

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28/ The product is delivered by the time promised by this website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

29/ I got what I ordered from this website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30/ Free shipping is the important reason that I shop at this website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Questions about security/privacy of the website

31/ I feel like my privacy is protected at this website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

32/ The website has adequate security features
1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

33/ I feel safe in my transactions with this website.

1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

Questions about the website customer service
Have you ever had any problems with your order such as returning items and contacting the customer service for help?

• ☐ Yes
• ☐ No

If yes, please answer the following questions in this section. Otherwise, skip this section and continue answering question number 40

34/ When I have a problem, the website shows a sincere interest in solving it.

1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

35/ I believe that the customer service personnel are always willing to help you.

1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

36/ I know exactly who to contact in case I have a problem regarding my order.

1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

37/ Inquiries I have are answered promptly

1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

38/ The company is ready and willing to respond to customer needs.

1  2  3  4  5  6  7

Strongly disagree ☐ ☐ ☐ ☐ ☐ ☐ ☐ Strongly agree

39/ The returning policy is easy to follow and straightforward
Questions about your level of satisfaction from purchasing at this website

40/ I think I did the right thing by buying from this website

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

41/ I feel badly regarding my decision to buy from this Website

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

42/ I am satisfied with the product I got from this website

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

43/ I am satisfied with the purchase experience at this website

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

44/ I am overall satisfied with this website

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

Questions about your level of loyalty towards this website

45/ To me, this website is the best to do business with

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

46/ I like using this website

Strongly disagree ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ ⃝ Strongly agree

47/ I believe that this is my favorite website to buy from.
### 48/ When I need to make a purchase; this website is my first choice

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

### 49/ I seldom consider switching to another website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

### 50/ I try to use this website whenever I need to make a purchase.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

### 51/ I will switch to another website if the price is a bit lower there.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

### 52/ I would recommend this website to those who seek my advice about such matters

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

### 53/ I would encourage friends and relatives to buy from this website

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
Appendix 2 – The full results of descriptive statistic, bivariate regression analysis and construct validity test

Descriptive statistic

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-reputation</td>
<td>211</td>
<td>5,7183</td>
<td>.81955</td>
</tr>
<tr>
<td>E-trust</td>
<td>212</td>
<td>5,5774</td>
<td>.82660</td>
</tr>
<tr>
<td>E-service quality</td>
<td>211</td>
<td>5,3600</td>
<td>.59446</td>
</tr>
<tr>
<td>E-satisfaction</td>
<td>212</td>
<td>5,8365</td>
<td>.87377</td>
</tr>
<tr>
<td>E-loyalty</td>
<td>212</td>
<td>4,8082</td>
<td>.92771</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>210</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bivariate regression analysis

Testing Hypothesis One –:E-satisfaction impacts e-loyalty positively

Variables Entered/Removed\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Satall⁰</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Loyall

b. All requested variables entered.

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
</table>
## ANOVA*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>32,262</td>
<td>1</td>
<td>32,262</td>
<td>45,368</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>149,335</td>
<td>210</td>
<td>.711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>181,597</td>
<td>211</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Loyall

## Coefficients*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.196</td>
<td>.392</td>
<td>5.602</td>
<td>.000</td>
</tr>
<tr>
<td>Satall</td>
<td>.448</td>
<td>.066</td>
<td>.421</td>
<td>6.736</td>
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</table>

*a. Dependent Variable: Loyall
Testing Hypothesis Two: E-trust impacts e-loyalty positively

### Variables Entered/Removed

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trustall</td>
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<td>Enter</td>
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</table>

a. Dependent Variable: Loyall  
b. All requested variables entered.

### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
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<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.392a</td>
<td>.154</td>
<td>.150</td>
<td>.85535</td>
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</table>

a. Predictors: (Constant), Trustall

### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>27,955</td>
<td>1</td>
<td>27,955</td>
<td>38,210</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>153,642</td>
<td>210</td>
<td>.732</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>181,597</td>
<td>211</td>
<td></td>
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<td></td>
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</tbody>
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a. Predictors: (Constant), Trustall

b. Predictors: (Constant), Trustall
a. Dependent Variable: Loyall

b. Predictors: (Constant), Trustall

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2,352</td>
<td>.402</td>
<td>5,857</td>
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<tr>
<td></td>
<td>Trustall</td>
<td>.440</td>
<td>.071</td>
<td>.392</td>
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a. Dependent Variable: Loyall

Testing Hypothesis Three: E-service quality impacts e-satisfaction positively

### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
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<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>Regression</td>
<td>55,372</td>
<td>1</td>
<td>55,372</td>
<td>110,892</td>
<td>.000</td>
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<tr>
<td>1</td>
<td>Residual</td>
<td>104,360</td>
<td>209</td>
<td>.499</td>
<td></td>
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<tr>
<td>Total</td>
<td></td>
<td>159,731</td>
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</table>

a. Dependent Variable: Satall

b. Predictors: (Constant), Servqall
Testing Hypothesis Four: E-reputation impacts e-trust positively

Variables Entered/Removed\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>repall(^b)</td>
<td>.</td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Trustall

b. All requested variables entered.

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.529(^a)</td>
<td>.280</td>
<td>.276</td>
<td>.70448</td>
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</tbody>
</table>

a. Predictors: (Constant), repall

---

Coefficients\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
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<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1,201</td>
<td>.442</td>
<td>2,715</td>
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<tr>
<td></td>
<td>Servqall</td>
<td>.864</td>
<td>.082</td>
<td>.589</td>
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a. Dependent Variable: Satall
### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
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<tbody>
<tr>
<td>Regression</td>
<td>40,277</td>
<td>1</td>
<td>40,277</td>
<td>81,157</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>103,724</td>
<td>209</td>
<td>.496</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>144,002</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Trustall

b. Predictors: (Constant), repall

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.524</td>
<td>.343</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>1</td>
<td>repall</td>
<td>.534</td>
<td>.059</td>
<td>.529</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9.009</td>
<td>.000</td>
</tr>
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</table>

a. Dependent Variable: Trustall
Construct validity

<table>
<thead>
<tr>
<th>Correlations</th>
<th>ereputation</th>
<th>etrust</th>
<th>eservicequality</th>
<th>esatisfaction</th>
<th>eloyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>ereputation</td>
<td>1</td>
<td>.530**</td>
<td>.495**</td>
<td>.459**</td>
<td>.310**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>212</td>
<td>212</td>
<td>212</td>
<td>212</td>
<td>212</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.530**</td>
<td>1</td>
<td>.583**</td>
<td>.601**</td>
<td>.392**</td>
</tr>
<tr>
<td>etrust</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>212</td>
<td>212</td>
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<td>212</td>
</tr>
<tr>
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<td>.495**</td>
<td>.583**</td>
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<td>.560**</td>
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<tr>
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<td>.601**</td>
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**. Correlation is significant at the 0.01 level (2-tailed).
Linnaeus University – a firm focus on quality and competence

On 1 January 2010 Växjö University and the University of Kalmar merged to form Linnaeus University. This new university is the product of a will to improve the quality, enhance the appeal and boost the development potential of teaching and research, at the same time as it plays a prominent role in working closely together with local society. Linnaeus University offers an attractive knowledge environment characterised by high quality and a competitive portfolio of skills.

Linnaeus University is a modern, international university with the emphasis on the desire for knowledge, creative thinking and practical innovations. For us, the focus is on proximity to our students, but also on the world around us and the future ahead.