E-Customer values in Vietnamese apparel industry

A study from customers’ perception

Thesis within Business Administration
Author: Ha Truong
Long Vu Ngoc
Nga Phan

Tutor: Johanna Holkko Lafourcade
Jönköping

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Ha Truong                      Long Vu Ngoc                      Nga Phan

Abstract

Key words: Customer value, value-adding factors, e-commerce, apparel industry, Vietnamese market, customers’ perception.

Background: Along with the development of many applications from Internet, Electronic Commerce (e-commerce) has changed the business scene in the global economy by emerging as a new, efficient channel of doing business. The apparel industry has also been approaching this way of doing business as an attempt to improve the effectiveness and efficiency of operations at various extents. In the Vietnamese market, Ninomaxx being well-known as leading fashion brand for young and proactive people is in the process of launching its very first online shop. However, the lack of information and the vagueness in regard to customers preference and shopping habit in the context of e-commerce leads to many difficulties for fashion companies like Ninomaxx. These lacking can all be traced back to one universal cause that is the insufficiency in understanding customers’ perceived value. Accordingly, it raises the authors’ interests to conduct a research of customers’ perception concerning customer value in Vietnamese apparel industry within the e-commerce context.

Purpose: The purpose of this thesis is to identify elements of e-commerce that customers perceive as value-adding factors in the context of Vietnamese apparel industry. Accordingly, thesis will examine how value can be created and enhanced for customers in the case of Ninomaxx and Vietnamese apparel firms in general.

Method: In this thesis, authors chose to collect and analyze data mainly through a quantitative approach. Prospective customers of Ninomaxx, whose ages were from 17 to 30, were the surveyed group. A questionnaire was employed to collect response from the group and was distributed in two ways: an online link and offline papers. Various nonparametric statistical techniques and one extensive model were used to analyze results of the survey.

Conclusion: From the perception of Vietnamese customers from 17 to 30 years old, there are 5 elements of e-commerce that are identified as very strong value-adding factors, namely, availability of information on the website, accuracy of demonstrating products’ color on website, seller’s ensuring products’ quality, seller’s trustworthiness and safety of using products. There are additionally 11 strong value-adding factors from perception of apparel customers in Vietnam. However, there is evidence of differences in customers’ response regarding their demographic characteristics and Internet usage. Apparel companies should consider accordingly in order to form the optimal strategy for e-commerce retail channel in Vietnam.
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1 Introduction

1.1 Background

1.1.1 E-commerce in general and in Vietnamese market

Since 1995, Internet users have witnessed the development of many applications from the Internet, ranging from online sales to e-learning. The Electronic Commerce (e-commerce) has changed the business scene in the global economic by creating new, efficient ways of doing business and ultimately increasing profit (Botha, Botha & Geldenhuys, 2007). In 1999, the emphasis of e-commerce shifted from Business to Customer (B2C) to Business to Business (B2B), and then from B2B to Business to Employment (B2E) in 2001. Together with the natural development of technology and Internet usage, e-commerce will undoubtedly continue to grow, shift and change (Turban, 2010).

In distribution to the tremendous increase of e-commerce, the apparel industry has also been approaching this way of doing business as an attempt of improving the effectiveness and efficiency of the operation. Apparel has become the third largest retail sales category on the Internet. And according to a report from FoxNews.com, the online apparel worldwide sales reached $18.3 billion in 2006, beating computers for the first time to hit the highest sales of $22.1 billion in 2007. E-commerce helps facilitating customers by offering online purchases, providing them with a wide range of new benefits while going shopping. The most valuable aspects of Internet shopping, as compared to store-based shopping, are typically perceived to be competitive pricing, one-source shopping, convenience, and time-savings (Corral, 2000). Recently, a few apparel manufacturers and retailers have used the Internet and even gone beyond normal existing offerings, providing the consumer with fascinating value-added Internet using experience. Some of the examples are customized online apparel catalogs and offering custom-fit clothing (Hammond & Kohler, 2001).

E-commerce appeared in Vietnam in the late 1990s but was unpopular due to its low speed dial-up Internet and uncompleted legal framework, Information Technology (IT) infrastructure as well as many other barriers. Not until early 2000s that Vietnamese businesses, especially Small and Medium Enterprises, in many sectors, started to recognize the potential of e-commerce application development in trading and managing. As a result, they caught these opportunities and approached this new trend of doing business in the global economy. With the population of about 88 million people, fast economic growth rate of 7% annually and the number of Internet user grew twofold between 2000 and 2010 – the 6th highest rate in Asia (Internet World Stats, 2011), Vietnam is expected to be “the Asian sleeping giants in terms of e-commerce” (Hoang, 2003). In addition, together with the situation of e-commerce business, the retail market of Vietnam also seems very promising. According to the market research report “Vietnam Retail Analysis (2008-2012)” by Research and Market (2010), even though the retail market in Vietnam is currently smaller than other Asian developing economies, it has shown strong fundamentals and optimistic expansion in comparison to other attractive markets such as China and India. The report further anticipated that Vietnam retail industry revenue will surpass
$113 billion by 2012 and the expectations of steep rise in income and consumer spending on non-essential items including clothing in the market (Business Wire, 2008). There is no other expectation than the growth of e-commerce as a new channel to accommodate the parallel expansion of retail market.

Government organizations and institutions have continued to discuss, establish, and implement various plans of action, policies, and potential framework for e-commerce development. However after almost one decade of progressing, doing e-commerce in Vietnam still faces many difficulties and challenges. The IT sector in Vietnam is quite young and the enterprises have not managed to build up a comprehensive network to meet the demand of business. Although Vietnamese enterprises have strengthened many new technology applications in their business, the general awareness of e-commerce in common standard is still low. Another difficulty is that the e-commerce regulatory system in Vietnam lacks a legal framework, documentation, and appropriate policy to guide regulatory management (Tran, 2005). Finally, Vietnamese customers in general still prefer their habit of conventional shopping and transaction conducting in which they feel safe about their money spending.

1.1.2 Customer value and its online counterpart

Since the 1990s, the ability of firms to provide superior value to their customers has been regarded as one of the most successful competitive strategies (Woodruff, 1997; Cronin, Brady & Hult, 2000). Executives consider customer value management as one of the major priorities (Gale, 1994), helping companies differentiate themselves from their competitors (Hoffman, 2000). The traditional customer value is understood as the perceived net benefit which customers can obtain from purchasing a product or service relative to its cost. Nowadays, retailers more than anyone are aware of the fact that value does just not placed solely upon the product and its functional benefits themselves, but also other additional services during the buying process as well as pre and post purchase. In other words, value should be created and/or added at every point of contact (Plant, 2002).

The key difference between e-commerce customer value (or e-customer value) and its offline counterpart is that it has online instead of physical settings, removing the human’s role in many parts of the process, thus, has a highly context – dependent nature (Yunjie & Shun, 2003). The new platform of consumption will lead to a change in perceived customer value as well as the factors influencing it (Chen & Dubinsky, 2003). Nevertheless, the role of customer value in Internet-based business is still as significant as in their bricks and mortar counterparts.

1.1.3 Ninomaxx’s case study

Ninomaxx is the leading and one of the three brands under Viet Fashion Corp, established in Ho Chi Minh City (Vietnam) in 1998 with the mission of “building the first casual wear fashion brand for the young Vietnamese” (Ninomaxx’s portfolio, 2010). Ninomaxx’s products are distributed through their own retail stores, franchised retail stores, retail agents and exported to several foreign markets, for example: Mongolia, Philippines, Egypt. The company offers a full range of product line including top and bottom with
the target segment are male and female aged from seventeen to thirty. As of August 2010, Viet Fashion has the largest retail stores network with 119 stores across the nation, among those 67 stores are of Ninomaxxx brand. Total assets doubled from $14 to $31 million in just three years between 2007 and 2010 while in the same period, compound annual growth rate was 57.2% (Ninomax’s portfolio, 2010).

Ninomaxx is an ideal choice for the study as the company has the position of one of the pioneers and leading brands in casual wear segment in the country. With e-commerce begins to take its footprint in Vietnam, the brand is expected to be one of the first firms to challenge themselves in the field. Additionally, Ninomaxx is in the process of launching their very first online shop and more than anytime needs to know about their target customers’ attitude and perception of various factors that may influence their online clothing purchase experience. Lastly, the target segment of the company can be considered to be young, innovative and usually have great interest in both fashion and the Internet. They, therefore, will more likely to account for the major part of online clothing product sales in Vietnam, making it a very interesting and important group of customer to study.

The usage of the Ninomaxx case mostly came from our need to downsize the population under study, limiting it into a relevant group age for the research. The specific situation of the company, however, did not affect the process as well as the findings of our study for the most part. Nevertheless, with their particular circumstances as mentioned above, the company can find the practical implications from our result useful for their future business strategies.

1.2 Problem discussion

With a market in which both the firms and customers are not familiar with the concept of e-commerce like Vietnam, there is certainly a need for study and literature suggest how online customer value can be created, in order for its great potential and opportunities to become reality. Unfortunately, the problem that hinders the growth of online retailing is the level of ambiguity in Vietnamese customers’ perception and behavior. Accessing to the statistical information including income, expenditures, and savings in Vietnam is difficult (PWC, 2006). This lack of information, subsequently, hampers the study of consumer behavior in Vietnam. The number of research in shopping habits, spending patterns in traditional retail channel is relatively limited. Naturally, the Vietnamese customer value in e-commerce, as an especially new area, has also not been studied properly as it should be in our opinion. And yet, it is very critical for the facilitation of the overall retail growth in the country.

The online apparel industry also has its own problems. Hammond & Kohler (2000) point out in their study that one of the most important issues which e-commerce in apparel industry faces are the difficulties in demonstrating products in online website. The major physical characteristics of a fashion product are color, design details, and fit feature which all are either difficult or even impossible to describe on such a virtual platform over the Internet. This problem in apparel online sales cannot be offset simply by providing customers previews, reviews from industry experts, designers or previous users.
like in the case of selling intellectual products and electronic devices online. Hammond et al. (2001) also mention the personal and emotional nature of a clothing purchase as another problem for e-commerce in apparel industry. To be specific, a decision to afford an apparel product always relates to the feeling of individuals, their image and the images they want to project. Fashion consumers value their shopping experience surprisingly high. Yet companies are struggling to deliver this particular experience to users of their online sale channel.

The deficiency of understanding Vietnamese end-customers in the online context really raises the demand for more study within this area, especially to keep up with the impressive potential of this growing market. Compounding it with the common problems of e-commerce in apparel industry, Vietnamese fashion companies including Ninomaxx would likely to benefit from research that focus on the online customer value, beginning with the basic such as the identification of value adding factors perceived by customers and how value can be created in Vietnam.

1.3 Purpose

The purpose of the thesis is to identify elements of e-commerce that customers perceive as value-adding factors in the context of Vietnamese apparel industry. Accordingly, thesis will examine how value can be created and enhanced for customers in the case of Ninomaxx and Vietnamese apparel firms in general.

Following the purpose, the thesis will attempt to answer these research questions:

- **Question 1**: Which factors of e-commerce create value to potential customers whose purpose is to shop for apparel products online and to what extent?
- **Question 2**: How do the demographic characteristics and Internet usage influence customers’ perception?
- **Question 3**: What are the managerial implications from the findings that Ninomaxx and the Vietnamese apparel industry can apply to create and enhance value for their customers?

Research with similar purposes have been done in the past, however, the uniqueness of our research comes from the specific case of apparel industry and the Vietnamese market, which to our best knowledge, was not studied before. The results of this thesis might be used as a helpful reference for organizations trying to improve the performance of their shopping website, or business that simply having the intention of selling apparel products online within this market, like Ninomaxx.

1.4 Delimitation

This study focuses on the customers’ segment in the range of age from 17 to 30. This segment is the targeted customer section of Ninomaxx in particular and many other Vietnamese fashion companies in general. The young customers have the tendency to follow and keep themselves updated with the fashion trend. Also, they are the generation that were born and grew up with the very presence of the Internet and therefore are most familiar with this modern multifunctional tool. Moreover, because of the time con-
straint, we decided to only focus on this most interesting group of customers in order to simplify the study.

The context of e-commerce and value in this thesis is only B2C as it centers on perception of customers. The notion of customers is also closely linked to consumers or ones who purchase products with the purpose of giving, presenting, but not reselling to consumers.

The study was also be limited geographically as only the customers from the two major cities of Vietnam, namely Ho Chi Minh and Ha Noi, were asked for opinion. The rural areas were out of our reach. Also, the retail situation in these areas and the people’s knowhow of e-commerce is limited and develops slowly.
## 2 Frame of reference

### 2.1 Previous Research

Previous researches below are studied within the fields of shopping in retail apparel industry, consumer value of online retailers in several other markets.

<table>
<thead>
<tr>
<th>Title &amp; Author</th>
<th>Purpose</th>
<th>Findings</th>
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<tbody>
<tr>
<td>“Measuring factors that influence the success of Internet Commerce”&lt;br&gt;Gholamreza Torkzadeh &amp; Gurpreet Dhillon (June 2002)&lt;br&gt;International Systems Research 13(2)</td>
<td>This study use Keeney’s means – end objectives network for Internet commerce model (1999) and examine the validity and reliability of the constructs (i.e., fundamental and means objectives).</td>
<td>The study’s results suggest a 5-factor, 21-item instrument that measures means objectives, and a 4-factor, 16-item instrument that measures fundamental objectives. These instruments are reliable, valid and can be used by academic scholars and practitioners when designing, developing and implementing e-business.</td>
</tr>
<tr>
<td>Consumer Value in Electronic retailing: A laboratory experiment in buying cloths.&lt;br&gt;Kurki Suvi, Virpi Kristiina Tuunainen &amp; Anssi Oorni (2007)&lt;br&gt;ECIS 2007 Proceedings. Paper 153.</td>
<td>The study attempted to explore the consumer value pattern that influences their purchase decision in e-commerce by conducting a laboratory experiment.</td>
<td>The findings suggest that customers are motivated by multiple values, which can be categorized into 2 main sets of value: utilitarian value (money, time savings; (larger) selection; service excellence) and experiential value (entertainment, visual, escape, interaction).</td>
</tr>
<tr>
<td>An empirical study of online shopping customer satisfaction in China: a holistic perspective.&lt;br&gt;Xia Liu, Mengquiao He, Fang Gao &amp; Peihong Xie (2008).&lt;br&gt;International Journal of Retail and Distribution Management</td>
<td>The study’s purpose is to identify factors that may influence customer satisfaction in China, from the perspective of overall online shopping experience.</td>
<td>In conclusion, factors were found to have significant impacts on overall customer value in China are: delivery, transaction capability, security/privacy, customer service, information quality, merchandise attributes, payment, and website design.</td>
</tr>
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One of the purposes of this study is to determine which customer-oriented factors are critical to the success of e-commerce companies in Thailand regardless of the industry. The author concludes that these value-added factors are: convenient websites, Internet connection, large product selection, brand name recognition, online security, customer relationship management, order fulfillment and trust.

Internet-based e-shopping and consumer attitudes: an empirical study.

One of the main purposes is to identify factors that have significant impact to the initial willingness to shop online of customers in Singapore. The findings propose a set of six determining factors: the life content of products, transactions security, price, vendor quality, IT education, and Internet usage.

### 2.2 Relevant Concepts

#### 2.2.1 E-commerce

**E-commerce:** is the exchange of digitized information within and across organizations relating to communications, electronic ordering and management of product and service activities (Freeder, 2007).

E-commerce consists of buying, selling, marketing and servicing of products or services over computer networks (Pankaj, 2005:5). In fact, its applications include: B2C e-commerce, B2B e-commerce, electronic funds transfer, supply chain management, electronic marketing (e-marketing), online transaction processing.
2.2.2 Electronic store

Electronic store/virtual store/click-and-mortar/web shop/online store is a web address at which its home pages provide information about its products or services and support of basic transactional processes (Yesil, 1997)

There are at least two types of electronic stores (Liang & Chen, 2000). Single store has its own website address that sells certain products or services (e.g., H&M, Zara…). The store webpage must provide advertising, ordering, payment, security, customer services, and other necessary functions. Whereas Electronic mall is the second type of electronic stores and understood as a web address that combines many electronic stores to create a synergy (e.g., Amazon, eBay…). The mall provides common functions such as advertising, ordering and payment for its stores.

2.2.3 Customer value

Traditional customer value

The concept of customer value is complex, multifaceted and has attracted a number of definitions (Kurki, 2002). Nevertheless, in one of his studies, Woodruff (1997) had pointed out three main commonalities that could be found in all these conceptualizations. They were: Customer value is always involved a tradeoff between what a customer has to give up and what he/she gets in return; it is linked through the use of a product and finally it should be based upon customer perceptions and not the company’s judgments. He then proceeded by proposing a definition that in his opinion incorporated the consensuses from the previous studies and at the same time supplemented and amended what they lacked:

“Customer value is customer’s perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer’s goals and purposes in use situation.” (Woodruff, 1997, p. 142)

As suggested by Woodruff, this definition grasps and reflects the complexity and rich nature of the concept. It shows that customer value is truly multidimensional: From the context (pre, during and post purchase), tasks (“preference for” and “evaluation of”) to assessment criteria (product attributes, consequences, customer goals and purposes) (Parasuraman, 1997).

Online customer value (or e-customer value)

Keeney (1999) defined customer value in Internet commerce as “the net value of the benefits and cost of both a product and the processes of finding, ordering and receiving it”. Despite the emphasis in the importance of traditional customer value, it seems to be fairly neglected in the commerce context (Chen & Dubinsky, 2003). While keeping the core meaning of the concept, perceived customer value is highly context-dependent (Holbrook, 1994) and can differs between consumption situations (Chen & Dubinsky, 2003). Consequently, e-customer value certainly has its own distinguish characteristics as it sets in a completely
different platform. Previous research papers which showed a low purchasing rate and modest overall satisfaction of online customers (Moon & Frei, 2000) once again called attention for enrich understanding of e-customer value.

2.3 A means-ends approach to clarify e-customer value in e-commerce.

2.3.1 The means-ends objectives model

Keeney (1999)
Various means and fundamental objectives are interrelated showed by the model above.

Keeney (1999) suggests an approach to articulate Internet commerce value to customers. The method of the approach is to get the very perception of customers about final values of both physical products and the processes of finding, ordering over the Internet, and receiving them. Then different values perceived by prospective customers are grouped into different objectives. Each objective generally categorize feature related to online purchasing that is thought to contribute value to customers.

The categories are then arranged in a means-ends relationship. All the objectives are basically divided into two major groups: means objective and fundamental objectives. While the fundamental ones are decisive factors for value perceived by customers, the means ones are nevertheless not less important as they serve as the tools to achieve the other ones. Put it differently, fundamental objectives influence customers’ final purchasing decision whereas means objectives suggest the improvement of fundamental objectives in particular and the overall customer value in general for companies.

Keeney also brings up the specification for the initial list of objectives which will generate a deeper view on the concerned objectives. Similarly, in order to adapt Keeney’s concept to apparel industry, the initial objectives will be clarified and amended in the sense of apparel industry’s business.

There have been many researches making an attempt to identify which factors are adding significant value to customers in the e-commerce contexts, with different industries and geographical markets. However as seen in the table of previous study earlier, the conclusions drawn from the findings in each research, although to some extent sharing several similarities, still have quite distinctive results. Subsequently, we decided to use Keeney’s model despite the fact it was written quite a long time ago (1999) as it covers nicely a wide range of value (which includes the majority of those factors that appear in mentioned previous studies) that may be perceived by customer when shopping online.

Additionally, the Vietnamese market has always been in lack of consumer behavior study being done properly, especially in a new field such as e-commerce. During our time of doing research, we have yet to find a well-established research in the regard to e-customer value, thus could not build a solid foundation for our own thesis. For that reason, an extensive model like Keeney’s Means – Ends Objectives Network for Internet Commerce, offering a relatively sufficient list of customer perceived value, is a good fit to a study within a geographically unfamiliar research area like ours.

The next two sections will be the explicit explanation of every means and fundamental objectives derived from the Keeney’s model above. Later on, all these objectives except for Impulsive buying (see the Pilot test section for more details) will be presented to the population under study through our research method, having these people assess them according to their perceived importance. By doing this, objectives that are adding significant value for Vietnamese customers shopping for apparel products are identified (Research question 1). Next, even perceived as important by the overall population, different
customers with different characteristics might show distinct perceptions toward these objectives. This will be investigated as well (Research question 2). Finally, practical implications from the findings will be given accordingly (Research question 3).

As the fundamental objectives are the results of the many objectives (i.e., several means objectives participate in the creation of one fundamental objective), they are often broader and more complex. For example, the *shopping enjoyment* fundamental objectives can be originated by many means objectives, such as *ease of use* (an easier buying process makes it more enjoyable), *personal interaction* (being capable of discussing, exchanging information with other buyers makes the shopping environment more exciting) or even *system security* (knowing that they are not being exposed to security threats would help customers feel more relaxed, comfortable and thus enjoy the shopping experience more).

### 2.3.2 Means objectives

#### Fraud

Fraud in e-commerce can appear in the purchasing process, transaction or delivery. The most commonly concerned fraud in e-commerce, however, is transaction-related scam. Subsequently, in order to deliver an optimal experience for customer purchasing online, fraud minimization need to be a considered issue by e-commerce companies. Keeney (1999), regarding this matter, suggests protection of customer from fraudulent incident throughout the whole process of online shopping, including prevention of fraudulent incident. Last but not least, seller legitimacy is also an important value perceived by customers.

#### Security

A customer’s perceived risk is associated with his uncertainty about the consequences of buying a product or service, decreasing his overall obtained value from the purchase (Bhatnagar, Misra & Rao, 2000). Kim, Ferrin & Rao (2008) also have a similar definition of e-commerce risk as a consumer’s belief about the potentially negative outcomes from the online transaction. A successful e-commerce website has to be able to lower perceived risk, which in turn enhances overall customer value, through marketing activities and technology improvement (Corbitt, Thanasankit & Yi, 2003). The three predominant risks in online shopping according to Strader & Shaw (1999) are financial, performance, and privacy/security risks.

Tsai & Yei (2010) suggest that, along with privacy, perceived risk of information security can have a severe effect on customers’ purchase intentions. Customer shopping online are exposed to various security threats posed by the openness of the Internet, lack of security in transactions, software error, system vulnerability and many more (Alam, 2009). With e-commerce, a retailer can show its intention to fulfill online transaction’s security requirement through security features (e.g. security policy, security disclaimer, safe shopping guarantee…) and protection mechanisms (e.g. encryption, authentication, protection…) (Kim et al., 2008).

#### Access to information
In online shopping environment, customers are facilitated searching, accessing to information more easily and explicitly than when they shop in physical stores (Lynch & Ariely, 2000). In addition to the variety of information, online shopping, using the collected customer information, also has the ability to provide them with tailored products/services accordingly to their needs or tastes on a one-to-one basis (Corbitt et al., 2003).

**Production information**

Another perceived risk as mentioned earlier is product performance risk, which is denoted as the loss incurred when a product fails to meet a consumer’s expectation. High quality product information can help gain customers’ trust and confidence in website shopping (Lee, 2009; Makgosa & Mohube, 2007), increasing their purchase intention. Therefore in order to reduce this perceived risk, retailers need to provide sufficient, accurate information to avoid misjudgment of the product and making poor decision from the customers (Forsythe & Shi, 2003).

**Misuse of Credit card**

According to a survey project of Horrigan (2008) done in American, thirty percents of Internet users who had declared that they did not like sending personal or credit card information online before still felt confident with this decision. Thus, from the customer side, minimizing unauthorized use of credit card and maximizing safety of credit card are what customers expect from the online retailers.

**Misuse of Personal information**

As important as the safety of credit card, Internet shoppers have always worried about sending their personal information online. Indeed, this is among the most critical determining factors of whether people choose to shop online or not (Horrigan, 2008). Thus, to secure prospective customers’ confidence, online retailers are expected to minimize receipt of unsolicited material and transfer of personal information.

**Assure Reliable Delivery**

Concerning to product delivery, customers demand that online retailers have to provide reliable delivery as well as assure arrival of purchases. As the means-ends relationship is illustrated through the Means-Ends Objectives Network for Internet Commerce, the mean objective Product Availability and Accuracy of Transaction directly influence the objective Reliable Delivery which has a great influence to maximize customer satisfaction.

**Limit Impulsive Buying**

Impulsive buying can be understood as a sudden purchase of a product without any pre-shopping intention to buy that specific category of product or even fulfill a specific buying task (Beatty and Ferrell, 1998). This purchasing behavior has parallels positive and negative affect for both company and customer side. Although to the perspective customers, Keeney (1999) points out that they want to minimize unwanted purchase and control unreasonable buying.
Accuracy of transaction

Any error with the product and/or occurs in the shipping and charging process can have a negative effect to customer value (Keeney, 1999). Accuracy of transaction influences Shopping Enjoyment.

Comparison shopping

Comparison shopping is defined as a shopping experience in which buyers will compare on the basis of price and quality before making a purchase (East Renfrewshire Council Glossary). Customers tend to use a two – stage process to reach their final decision: first they screen all available products and narrow them down to a set of products that are worth considering further. After that they will have an in-depth comparison among these selected products and finally make the purchase decision. Here e-commerce has the advantage of offering sophisticated, highly interactive features and tools which can assist buyers in their decision making process (Haubl & Trifts, 2000).

Purchase choices

Keeney suggests minimization of disappointment and maximization of confidence of making the right choice after purchase decision of customers. Inman & Dyer (1997) believe that post-choice feeling is influenced by perceived differences between expected product and attained one as well as forgone alternatives. Accordingly, better purchase choices requires elimination of disappointment caused by expectation not meet and forgone alternatives. Fashion innovativeness might affect the post-purchase experience of customer in apparel industry (Minjeong & Kim, 2009).

Product Variety

Maximizing product variety includes focusing on the diversification of products, providing large selection range with relevant to price and broadening choices for customers. Sen (2008) suggests that fashion industry is characterized by volatility and product variety. Furthermore, the Internet accommodates abundant choice of product for the buyers as well as provides a mean for companies to illustrate their assortment of offerings. As a result, this objective is critical for apparel companies to deliver value to customers.

Product Availability

Product availability is the assured presence of product that is ready to be delivered to customer right at the spot in brick and mortar stores and right after purchasing decision in online stores. Enhancing of product availability can be acquired by stocking more and applying up-to-date technology to facilitate the flow of information in the supply chain. Also, availability of product relates to optimizing range of quality option.

Personal Travel

Throughout online purchasing process, the customers’ effort of travelling to obtain the product should be as low as possible. Home delivery should always be available as an al-
ternative option to customers. Keeney (1999) suggests minimizing of travel distance and driving effort as means to minimize personal travel.

**Ease of Use**

Ease of use is a concept which is widely understood by the definition of Davis since 1989 as “the degree to which a person believes that using a particular system would be free of effort”. He also says that an application perceived as easier to be used than another will be accepted by users. A website facilitates information processing; has a friendly, easy to use online user interface and thus help simplify the shopping experience will add more to the overall customer value (Chen & Dubinsky, 2003).

Ease of use mentioned by Keeney means the easiness of the whole online buying process that could be achieved by the following suggestions. First, the user interface of the webpage needs to be simple, easily understood and used. Second, the online sale channel should be without problems accessible for targeted customers. Also, the process of surfing and overall searching to find desired product should be as simplified as possible. Last but not least, purchasing is easy and uncomplicated to be carried out. For apparel e-commerce, ease of use in the buying process is even more important because of the complexity and abundance of products. Maximizing ease of use is one of the most important means objectives that need to be focused in order to deliver expected value to customers.

**Personal Interaction**

Personal interaction is still an important part of doing business in the time of tech-savvy company (Moran, 2011). Keeney (1999) believes that interaction with human support is important for customers and can be perceived as value. Companies also need to provide other opportunities for personal interaction in the process of selling and buying online. For apparel industry, the interaction should be both between buyers and sellers and among customers themselves.

2.3.3 **Fundamental Objectives**

**Product quality**

Doing shopping by any means of purchasing in click-to-mortar or brick-to-mortar, customers select goods/services to buy based on the assumption of how much they will be rewarded with value and satisfaction (Novak, 2008). Also according to Keeney (1999), how much customers value products and services is critical to the success of any company. Therefore, marketers must provide the right combination of quality, price and customer service to create customers positive value and increase their satisfaction. The first fundamental objective that Keeney concerns is Maximize Product Quality; including maximizing product value, ensuring quality of product, getting the best product for the money consumed and maximizing functionality of purchased item. Having a high product quality at a reasonable price can drive to the full satisfaction of customer. The quality of product, however, is difficult to define since it varies along with the price and quality relationship. Nevertheless, customers always expect a product to at least perform what it
is supposed to do which consists of all the functions, e.g., safety measures, last in the conditions of normal use, easy to maintain or repair by consumer. Another important feature is that products must look good, with the original brand identification which could gain the positive customer perceptions.

Cost

The second important fundamental objective is to Minimize Cost includes minimizing all kind of costs such as product cost, tax cost, shipping cost, Internet cost and travel cost. According to Keeney (1999), the net value customers may consider mainly consists of the benefits and price of the product along with the benefits and costs of ordering and receiving product. Thus, reducing cost in each sector can have a great effect on the final price that customer perceive, as well as effectively help company to gain competitive advantages.

Convenience

In general, convenience for customers is defined as saving the time and effort they consume when purchasing a good (Rohm & Swaminathan, 2004) rather than the product’s characteristic or attributes. Since the 1990s, researchers (e.g., Javenpaar & Todd, 1997) have suggested that convenience was one of the major perceived benefits as many buyers have been using it as a basis for making purchase decisions. With the development of the Internet and other technologies along with the improvement of customers’ living standard, the demand for convenience has increased tremendously. Donthu and Garcia (1999), however, discovered that the online shoppers tended to be more convenience seeking than their offline counterparts. Indeed, convenience is one the most appealing factors that attracts customers to buy their product online as they can “go shopping” while carrying out other activities. Since convenience was identified as an attributing factor for the growth of e-commerce the competition between companies trying to reduce their customers’ time, effort and personal hassle is becoming fierce as well. The concept of convenience is very broad and based on its definition, it could be said that fulfilling other objectives, i.e. maximizing time and effort reduction, will ultimately bring the full convenience to the customers.

Time Spent

Customer always tries to maximize the perceived value obtained from his shopping experience subject to not only income constraints but also time constraints (Becker, 1965). In other words, the time budget, just like price, is a cost and also restrains buying choices. The cost of time is the opportunity cost of the participation in other activities that customer has to give up. The time spent in an online store is certainly different from the time spent in a physical store. According to Keeney (1999), they are the time for customers to gather information, search, find, select, order and pay for a product; the processing time (for the website to load between page and page) and time for other communication. As the previous section stated, saving time spent for acquiring a product contributes directly to customer’s perceived convenience. Therefore, the less time consumed, the more convenient a shopping experience is.
**Time to receive product**

Keeney (1999) assumes that the delivery of a product can affect all of the fundamental objectives of the value proposition except for product quality since individuals want to use as little time as possible while waiting for arrival of products. From the company perspective, to avoid inconveniences for customer and reduce the opportunities cost of waiting for product arrival, e-retailer must keep delivery time, shipping time and dispatch time at the minimum.

**Privacy**

Privacy risk is the degree to which customers bear a loss of privacy due to the information they have to give out when shop online (Jarvenppa & Pike, 1996-1997). As stated in the Security section, the perceived risk coming from security and privacy are critical factors in the process of consumption in the Internet (Chang & Chen, 2008; Bauer, Falk & Hammerschmidt, 2006). Customers’ privacy concerns in e-commerce can take form of information leakage, tampering, identity (Lu, Huang & Lo, 2010), emailing list (Keeny, 1999) or the uncertainty of how their personal information are handled and who has the access to it (Youn, 2009). In retail environment, bad privacy or perceived risk in general can arouse doubt and hesitation from customers (Martin & Camerero, 2008), and thus has a directly negative effect on the perceived value. Therefore, increasing privacy in e-commerce is an important mission to enhance the overall customer value.

**Shopping Enjoyment**

Shopping enjoyment is referred to as the extent to which the shopping process with a web store is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated (Cai & Yu, 2006). However, the notion of shopping enjoyment of Keeney understood through the scope of his further specifications is broader than the enjoyability of the online web store. Keeney’s shopping enjoyment is supposed to be experienced by customers through the whole process of shopping online.

According to Keeney, shopping enjoyment can be achieved through turning shopping into a social event. Also, the web store should also serve as a mean to inspire customers and enhance their productivity. Furthermore, the better purchase choices for customer which can be achieved through minimize disappointment of products and maximize customer confidence of purchasing decision would also lead to better shopping experience.

For e-commerce in apparel industry, shopping enjoyment from a brick and mortar stores is immense. Bringing the offline experience online would currently be close to impossible. However, substitution values that bring enjoyment to customer can be uniquely delivered online. Kun and Ann’s research (2007) shows that telepresence influenced consumer fantasy and both telepresence and consumer fantasy led to shopping enjoyment. Consequently, enhancing these factors will in turn raise the enjoyment of customers.
Kahn & Menon (2002) conclude in their study that the characteristics of products and websites that are encountered early in online shopping process can significantly affect the level of arousal and pleasure that customer experience, and therefore can influence their subsequent shopping behavior. Therefore, companies need to overly focus on the first impression about their online store.

**Safety**

Safety of e-commerce is indicated by the safety of usage of product as well as of the exploring and buying process. Customers need to experience that they are totally secured when they purchase product as well as when they finally obtain and furthermore use it. For apparel industry in particular, one of the noticeable feature that influences safety of usage is the material of the clothing. Otherwise, the safeness of surfing website, obtaining product is similar to other type of e-commerce that requires secured system and delivery.

**Environmental Impact**

The less company’s products damage the environment and create pollution, the better its image is in perception of customers and other business partner. In the sense of e-customers value, Keeney suggests that minimizing environmental impact is one of the factors that contribute to value perceived by buyers. As Sen (2008) says that apparel product’s life cycle is considerably short, thus, its impact on environment will be even fiercer. Thus, companies that can compete in environmental friendly issue may have an advantage of delivering higher value to customer.

**2.4 Theory Emphasis and Limitation.**

As we already stated in the introduction of the theory, when applying the model to a study, it is not necessary to strictly follow the elements or components included; but rather the authors should modify it based on their own specific situations. Accordingly, in the process of adapting this Means-Ends model to our thesis, we also made a few changes so that it is more appropriate for the apparel industry and the Vietnamese market.

All objectives in the model are presented not separately but as a network, in which they interact, contribute to, and influence each other. Nevertheless, there are objectives that have similar ideas (e.g. Product related objectives: Product availability, Product variety, Range of product selection) or objectives that have more direct, obvious relations among themselves than the others (e.g. Fraud, Misuse of credit card, Misuse of personal information, system security...). With this in mind, we tried to gather these objectives into bigger groups when translating the theory into method to collect data. The idea was to have a neater, clearer view as well as to make it easier and more effective for us in the analysis process conducted later on; since the number of objectives is relatively large and it can be overwhelming for both the respondents and us managing to keep track of everything. Also by doing this, the relationships of both means and fundamental objectives in the network will be reflected to some extent. More details on how we put this into action will be gradually clarified as we proceed to the next several sections of the thesis.
As extensive as the Keeney’s Means-Ends model is, it is not possible to cover every single adding value factors in the e-commerce context. We made efforts to translate a theory in paper into practice effectively, as well as alter the model so it would fit more into our specific case; even so, there are shortcomings which could be fixed and changed if the time budget allowed. One of the examples is the restricted expression of the interrelations between means and fundamental objectives, as well as between the means objectives themselves. It is rather complex and to have a complete and precise presentation of the whole network is relatively difficult and could not be achieved within this study.
3 Method

3.1 Research Approach

Research problems will decide the design of the whole research whereas the method, in order to study the phenomenon, will be revolving around the purpose specified from the intention of researchers in regard to the said problem. As a result, researchers need to consider among various approaches to choose the suitable method that accommodate optimal fulfillment of stated purpose. Beside the purpose, another factor that can affect the researchers’ choices of method is the maturity of the research area and previous knowledge of the same field. Moreover, the degree of researchers’ control over units and variables including time of study also influence research approach. Other uncontrollable causes such as sudden incident, political situation would as well need to be taken into consideration for choosing the suitable method. How these factors affected our decisions of choosing method during the process will be clarified in details below.

3.1.1 Exploratory, descriptive, explanatory research

The variety in purposes usually lead to three main types of research namely, exploratory, descriptive, and explanatory research (Yin, 1994). Exploratory study is conducted to obtain a greater understanding of a phenomenon or to help crystallize the concerned problem and its underlying issues (McDaniel, 2010). According to Hyman and Sierra (2009) descriptive research aims to accurately describe the phenomenon by identifying characteristics of the related variables and even the relation among them. Last but not least, explanatory research studies a problem or a situation to look for explanation of nature of the relationships between variables. The name of causal research is also often mentioned in various marketing research approaches. From our point of view, the idea of causal research is very similar to exploratory research which is more known of by the researchers.

With the aid of Keeney’s theory, we have acquired general knowledge of the phenomenon of interest. In order to fulfill the purpose of adapting the theory to the Vietnam apparel market, we decided to take both descriptive and explanatory research approach when carrying out the study. Descriptive approach facilitated our need to describing the customers’ perception of various values that belong to the e-commerce channel. Whereas explanatory approach was our mean to find the relation between customers’ perception and their demographic and habitual characteristics.

3.1.2 Inductive and deductive approach

When conducting research, there are two different approaches to take. Deductive approach starts from a specified knowledge such as scientific theory to study a problem and logically deducts the conclusion about or answer of that problem based on the original broad knowledge. On the other hand, inductive approach builds up necessary information around a problem through observation. Then, similar traits among the vast in-
formation gathered are identified in order to build up a general proposition of the studied problem (Zikmund, 2000).

An inductive approach is more suitable for an explorative purpose which often aims at new knowledge, development of theories about the phenomenon under study. Whereas deductive approach is more applicable for the case study that based on well-established theory and strives to get a clear picture of a phenomenon.

The approach chosen by us was deductive approach in order to accompany the descriptive and explanatory nature of the study. In regard to the supporting theory, the study aimed to clarify e-customer value from the perception of customers in apparel industry of Vietnam. The conclusion would then be deducted from gathering and analyzing of data to answer the mentioned research questions.

3.1.3 Qualitative and quantitative method of data collection

There are usually two major approaches to data collection in business researches namely qualitative and quantitative methods. The two methods can be distinguished generally by the forms of data that they generate. Quantitative methods collect and work with data in numerical form. On the other hand, qualitative methods provide researchers with data in words or visual form (Yin, 1994). However, on a note about research method of Harvard University (2001), it is suggested that to assume that there must be a strict black and white distinguish between the two approaches is a mistake. Quantitative and qualitative methods of data collection are often employed together in one research project so that they can support and enhance each other. The different forms of data can also be modified, transformed or evaluated differently to adapt to the research’s needs.

However, due to the difficulties in direct interacting with the units of study which is the customers of apparel products in Vietnam, we chose to collect the data mainly through the quantitative approach and the method of study was centralized on quantitative measurement. Even there are a few questions in the data collection form that require answer in words form by respondents, the data itself would later be transformed in to numerical values in order to be evaluated statistically. The quantitative approach enabled us to target a larger portion of units for study. Another advantage of quantitative approach is that it allows the results to be generalized. Also those results can be viewed and evaluated objectively without subjective biases because of rigid and strictly structured nature of quantitative method. The qualitative data collected were with the purpose of supporting the quantitative approach.

3.1.4 Research method choice

There are many kinds of research method that is applicable for business research. Some noticeable methods are experiment, survey, case study and action research. There is no best method for a single research regardless of how unique or simple it is. However, the suitable method can be chosen after considering various factors which are: the research-
ers’ resources and objectives, respondent characteristics and the characteristics of questions (Burn, 2000).

There were many issues that we evaluated carefully before deriving at the conclusion of a suitable method. Firstly, since the people under study were Vietnamese customers and we could not directly present in the population of interest (i.e., Vietnam) for collecting data, approaches that required sophisticated interaction with the unit of study (e.g., focus group, unstructured interview…) were out of our capability. Second, due to the nature of quantitative study, large sample size was expected to be investigated. Also, the object of the study was the perception of customers. Thus, the method chosen needed to be able to accommodate easy and simple extraction of information from respective customers due to geographical distance between our group and the population of study. Last but not least, the construction of study mainly based on the extensive model of Keeney which in turn lead to the simple and clear nature of the questions.

Taking into account of these aspects, we settled on using survey as the method of study to target a relatively large sample size that represented population of interest. The customers in Vietnam were approached indirectly through the use of technology and the help of Ninomaxx as well as other supporting means.

3.2 Survey

According to William and Barry (2007, p.186), survey is defined as “a method of collecting primary data based on communication with a representative sample of individuals”. Survey is usually associated with the deductive approach. Using survey method allows researcher to collect quantitative data which can be analyzed using descriptive and inferential statistics, and moreover, it allows collecting a large amount of data from a sizeable population in a highly economical way (Philip & Adrian, 2009). Due to its advantages, surveys give the researcher more control over the research process and the data collected by this method is unlikely to be wide-ranging as those collected by other research strategies (Mark et al, 2009). Thus, we decided to use survey as the main quantitative method to answer the research questions and achieve the study objectives. Particularly, the core part of our survey strategy is questionnaire designing technique of which its process and method are described in the next section.

3.3 Data collection

3.3.1 Primary data

Primary data is the original data that is collected directly by the researcher (Devine, 2003). For our study, primary data was collected through the usage of questionnaire.

Questionnaire, to be specific, is a research instrument and a popular type of survey to gain statistical information by a set of questions being proposed to people (Princeton’s WordNet). A questionnaire was a suitable choice as it was able to serve our research objectives with the limited budget of time and cost, facilitating getting infor-
ition from a wide range of respondents in a short amount of time. It should also be noted that the purpose of determining factors that are important for e-customers in apparel industry indicated that the obtained information might be moderate in depth but were fairly broad. Implementing a questionnaire really helped with the situation since it could cover a large amount of customer value-oriented factors in simple, short questions.

Our questionnaire survey was in the form of self-completion surveys, both paper-based and electronic. Respondents could complete the survey on their own by either filling their answers in the questionnaire sheet or answering the questions in our online questionnaire without the presence of an interviewer. These methods are flexible, removing the time pressure for the respondents and allow them to answer the questionnaire in their comfort zone. The web-based surveys also have other advantages offered from the advanced technology like visual appeal and fast analysis of the attained responses. Kellner (2004) also points out that respondents tend to answer more honestly in self-administered surveys because the absence of an interviewer also eases the social desirability bias. In other words, people are more comfortable to give out answers, especially for questions with sensitive topics, when not having a face-to-face interview with an interviewer.

The challenges here for us, however, were to maximize the participation, minimize response breakdown and make up for the lack of the interviewer by designing the questionnaire so that respondents can understand its content easily and accurately.

Other details about how the questionnaire was planned, written and distributed are presented below.

3.3.2 Secondary data

Secondary data is pre-existing data that are already been done by previous social studies. Researchers often make use of these data, along with the primary data they directly collect, to do their research (Heaton, 2003). Our secondary data sources mostly came from academic books; scientific articles that can be found in databases made available through the university library such as Google Scholar, Scopus, JSTOR and SAGE. Other statistics and reports were also used as sources of secondary data.

3.4 Questionnaire

3.4.1 Planning the questionnaire

Information required

The first step in planning a questionnaire is to determine what information areas need to be covered based on the research objectives (Brace, 2008). In this case, the principal information was the perception of Vietnamese e-customers toward various value-added factors in apparel industry. Translating it into a particular task, the questionnaire should present every factor that might or might not be important for the respondents while shopping online and explore whether they have significant impacts on their overall online shopping experience.
Other additional information required comprised demographic and classification materials, along with some other data concerning respondents’ Internet usage and shopping pattern that would be helpful for the analysis later on.

**Section sequencing**

The questionnaire opens with a brief introduction including the screening questions, followed by several warm-up questions and ends with the main questionnaire.

The introduction truthfully identifies the surveyors (our group and Ninomaxx) of the questionnaire; the purpose and subject of the survey and ensures the anonymity and confidentiality of the collected responses. Screening questions are the part in which researchers “screen the respondents for eligibility for the survey” (Brace, 2008). As we do not wish to find out a person who answered the questionnaire does not meet the criteria to be in the sample definition only at the very end, screening questions were placed in the introduction. People who were eligible for answering the questionnaire were Ninomaxx’s target segment: Vietnamese customers aged from 17 to 30. As a result, the screening questions would ask for the age of the respondents (along with their gender). However since there was a possibility that many people might not be very willing to give out their precise ages or found it unpleasant to answer, we tried to avoid this circumstance by requiring them to write down their year of birth instead.

Warm up questions can be understood as simple and easy to answer questions that may pertain to the research objectives (Burn, 2000). For this section we decided to put some undemanding – from – respondent questions asking about people’s Internet and shopping habits. Between the main questionnaire and the warm-up questions is a small transition where a statement is made to let the respondents know a charge in the topic and format is coming. The main part of the questionnaire contains thirty two questions yielding attitudes of respondents about various elements in e-commerce.

**3.4.2 Writing the questionnaire**

**Question designing**

As mentioned before, the factors presented to customers were derived mainly from the means and fundamental objectives of Keeney’s model. While constructing question, we keep in mind the elaboration of all objectives from the theory section. Thirty-two questions were divided into nine main groups containing questions that have similar themes (i.e., objectives). For examples: all questions concerning product-oriented objectives were grouped together, or questions that were related to security and privacy issues were put into a same group and so on. This way of grouping questions by content helped participants focus, organize thought as well as have a better understanding of the questionnaire’s construct (Knowles, 1975). Recall in the Theoretical framework that the means objectives do not just stand for themselves and have impacts on just one single fundamental objectives, but rather they involve with many other means and influence multiple fundamental objectives. Likewise, most fundamental objectives are broad, multilayer concepts; they are created by the contribution of various means objectives. This complex interrelationship certainly could not reflect into the questionnaire (due to its simple, one
As the result, how we gathered the objectives and gave name for the groups did not draw the whole picture of the objectives network, it was simply the best solution we could found to give the questionnaire a natural, logical flow and still somewhat grasp the relationships of the objectives.

Although the factors were generated closely from the components in Keeney’s means-ends objective model; they were later crafted accordingly and specifically to the apparel industry and the Vietnamese market. For instance, in the objectives involving payment, we decided to add additional choices of paying for the product instead of only including credit card payment. The reason for that is, unlike in anywhere else, many customers in Vietnam are not familiar with the usage of card to purchase goods or services; they much prefer the method of paying cash at delivery point as it is more convenient and feels ‘safer’. Another example of adjusting the model to our needs is the addition of the product’s color demonstration in the website in preference of only mentioning product information in general, since it is a particular concerned problem in online apparel retailing, just like the Problem discussion section has brought up.

The table below shows the nine main groups of question and how they tie with the objectives from the Keeney’s model.

<table>
<thead>
<tr>
<th>Group</th>
<th>Means objectives</th>
<th>Fundamental objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to information</td>
<td>Access to information</td>
<td></td>
</tr>
<tr>
<td>Q1, Q2</td>
<td>Product information</td>
<td></td>
</tr>
<tr>
<td>Shopping enjoyment</td>
<td>Personal interaction</td>
<td>Shopping enjoyment</td>
</tr>
<tr>
<td>Q3, Q4, Q5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping convenience</td>
<td>Ease of use</td>
<td>Time spent</td>
</tr>
<tr>
<td>Q6, Q7, Q8, Q9</td>
<td></td>
<td>Shopping convenience</td>
</tr>
<tr>
<td>Product selection</td>
<td>Product variety</td>
<td>Cost</td>
</tr>
<tr>
<td>Q10, Q11, Q12, Q13</td>
<td>Product availability</td>
<td></td>
</tr>
<tr>
<td>Product features</td>
<td>Comparison shopping</td>
<td>Product quality</td>
</tr>
<tr>
<td>Q14, 15, Q16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>System security</td>
<td>Safety</td>
</tr>
<tr>
<td>Q17, Q18, Q19, Q20</td>
<td>Fraud</td>
<td></td>
</tr>
<tr>
<td>Payment</td>
<td>Misuse of credit card</td>
<td>Privacy</td>
</tr>
<tr>
<td>Q21, Q22, Q23, Q24</td>
<td>Misuse of personal information</td>
<td></td>
</tr>
<tr>
<td>Delivery of product</td>
<td>Reliable delivery</td>
<td></td>
</tr>
</tbody>
</table>
Type of question

There are three basic types of question formats in marketing research: The open-ended response format question, the closed-ended format question and the scale-response question (Burn, 2000). Researchers pick the applicable format based on different factors like the nature of the material being measured, the data collection mode, and the desired scale among many other things.

Closed-ended question provides a set of possible response options and is usually used to measure behavior. This type of question is easy for both the researcher to process the collected data and the respondent to read, understand and respond (Babbie, 1973). Because of its function, closed-ended format was used for our warm-up questions where we asked respondents’ frequency of their Internet usage and general purchasing online. In each question, respondents were offered a list of five different responses to choose from, and it was not possible for them to select more than one alternative.

After two behavioral questions is the main questionnaire section where respondents were asked to express their opinions about various factors influencing their online clothes shopping experience. In general, it is relatively easier for customer to respond to questions measuring their behavior than describe their attitudes toward a problem or issue (Brace, 2008). For this reason, researchers need to help the respondents convey their attitude and in a form that is analyzable. We decided that scale-response question, which utilizes a scale developed by researchers to measure the object under study (Burn, 2000), was the appropriate type of question for this part of the questionnaire. This is also the most commonly employed approach to measure attitudes (Brace, 2008).

Measurement scale

Depending on the research objective, a rating scale for the scaled-response question is developed (Burn, 2000). There are many different types of scale and each has its own function; however for our study, likert rating scale and numerical rating scale are used to serve our needs. Likert scale is a technique that measures the intensity of agreement or disagreement (Burn, 2000). In those questions that employ this rating scale, our participants are asked whether, and how strongly, they agree or disagree with a statement. Numerical rating scale is another measurement technique to collect participants’ attitude towards certain concepts using a series of point bipolar rating scales (William & Barry, 2007). The bipolar adjectives used in our questionnaire are “not important” and “very important”; “not concern” and “very concern”; “not worried” and “very worried”; “not
willing” and “very willing”. The scale is from 1 to 5, the reason for this choice of measurement scale range is explained in the “Pilot test” section.

**Other considerations**

Writing a questionnaire is all about aiding respondents so that they can give out the best responses possible (Brace, 2008). In order to achieve this, we paid attention to every details of the questionnaire – from the choice of word, the phrasing of sentence to the order of question, the length of the overall questionnaire and many other design-oriented factors.

We tried to keep the questions simple, short, clear as well as avoid misleading, ambiguity and bias. Reading instructional books and various questionnaire that had been done before gave us the idea of a standard question in a questionnaire, i.e. how it was usually written. Additionally, we made an effort to get a hold of the respondents’ vocabulary; using their everyday language instead of strictly technical terms which could be challenging to understand. The tone of the questionnaire was also conversational yet not too familiar or condescending. Standardization of questions had been an issue that we really concern during the preparation of the questionnaire as well. While using the same format of question repeatedly may wear the respondents out, doing this helps them to build the knowledge of how question is answered. In the end, we decided to use several similar sentence phrasings; so that participants would not get bored, losing their focus; and yet, the questions were still similar enough for them to spot the response pattern. Other minor matters like the use of font, space, color, and layout were not left out.

The question groups were designed following the order of a purchasing process; from accessing to information of the product to the final steps like payment, delivery and other consideration after the transaction is completed. This gave a logical and reasonable flow to the questionnaire.

**3.4.3 Translation**

According to Harkness (2003), translation issues are one of the most frequently mentioned problems in literature dealing with empirical comparative research, both qualitative and quantitative. Pan & Bouic (2009) state that the translation of survey has to satisfy four basic requirement which are: to make sense, to express the original paper’s spirits and manner, to have a natural and easy form of expression, as well as to produce a similar response. As we chose a Vietnamese fashion company to study and focused on gathering responds from Vietnamese potential customers, the questionnaire was necessarily being translated into Vietnamese language. The advantage of our translating process was that we are all Vietnamese, thus we were completely capable of understanding what we were mentioning about. Translation began once the source questionnaire – the English version - was finalized. Our committee translation was organized as “split translations” (Glusberg, 1992) since our questionnaire was relatively long with thirty-two questions. The translation was divided between two members to save time and effort, while the third and the last member played as the reviewer who went through the entire questionnaire discussing versions and agreeing on a version. In order to eliminate all misunder-
standing term of words and to have an overall evaluation, we asked for help from some friends, who are studying Business and Economic at several prestigious Vietnamese universities, before coming to the final version. The basic requirements, therefore, were fulfilled after a careful checking and adjusting process.

Details of the questionnaire in both English and Vietnamese can be found in Appendix 1 and 2.

3.4.4 The online questionnaire

Online questionnaire was up through Qualtrics online survey service (provided by JIBS) almost right after the questionnaire had been finished. Like other online surveys, respondents could tick their answers for all the questions in the webpage effortlessly. In case they accidentally left any questions unanswered, the website would have a small reminder for them to finish before continuing. Each response’s IP was record once he/she completed the survey to prevent respondents from carrying out multiple submission and manipulation of result.

The online questionnaire was distributed at:
https://jibs.qualtrics.com/SE/?SID=SV_2uihD85VE1xaiCU

3.4.5 Pilot test

Pilot testing is a critical step in a questionnaire developing process (Thomas, 2004). It is often carried out before the real run of the questionnaire with a small number of participants that usually are representative of the target audience. Pilot test is very important as it enables the researchers to test all aspects of the survey project, finding out if everything “works” as expected (Thomas, 2004).

After wrapping up the writing of the questionnaire within our group, a pilot test with a representative set of respondents (around 8 to 10 persons) was performed in order to reveal potential problems. The overall feedback received was generally positive. Aside from several errors, most people could answer the questionnaire relatively easily. Some of the wording and translation were adjusted for clearer understanding. The scale was also reduced from 1 to 7 to 1 to 5 after many raised concern about the former. Originally, all objectives from the Keeney’s model had been included in the questionnaire. However, some respondents of the pilot test had difficulty in understanding the concept of Impulsive buying; and then even after being given the explanation, their opinions were generally that this factor was not much of their interest. As our survey was in form of self-administrated questionnaire without an interviewer to clarify problems and unknown terms, we decided to exclude the Impulsive buying objective from the questionnaire.

The length of the questionnaire, which initially had been one of our worries, appeared not to be a big problem to the participants. The amount of time it took to finish the questionnaire in the pilot test ranged from four to thirteen minutes. Notably, Vietnamese respondents in the pilot test did not seem to mind revealing their year of birth at the beginning of the questionnaire. The online survey run smoothly and did not reveal any technical faults.
3.5 The sampling plan

3.5.1 Sampling method

The population of the survey as stated was potential Vietnamese customers, aged around the range from 17 to 30. Drawing a sample was necessary because it would be impossible and impractical to run a census study with the entire population. Since the survey was distributed through both online webpage and offline paper, we employed a mix of two types of samplings through both channels. The survey would be ended when the number of qualified respondent from both on and offline platforms reached the estimated sample size.

There are two basic sampling methods: Probability sampling and Non-probability sampling. In probability sampling, the respondents’ chances of being selected in the sample are known whereas in the latter they are not (Burn, 2000). In our case, a sampling frame, which is list of all elements in the population that the sample is drawn from (Burn, 2000), was not available so we could not use a probability sampling. Non-probability samplings include convenience sampling, judgment sampling, referral sampling (or snowball sampling) and quote sampling (Burn, 2000). Quota sampling is a method in which the population is split into various sub-groups of individuals with non-overlapping characteristics. The number of individual needed are calculated proportionally to the elements in the sub-groups. The sub-groups are then divided among surveyors who will set out to find respondents fitting the required quote criteria to complete the survey (Burn, 2000; Schofield, 2005). This is the most-widely used non-probability sampling method and appeared to be the best option for our situation.

Consequently, the population was divided into three main sub-groups according to their age: 17 to 22, 23 to 26, and 27 to 30 (the decision of dividing into three age groups will be explained later). Since we were not physically staying in Vietnam where the survey took place, several of our acquaintances (around 5-7 persons) were given the task to find the suitable respondents. One person had to find a certain number of participants and could stop until they fill his/her quota. The distribution of survey took place in a period of two weeks, from the 5th to the 20th of April, right after the number of respondent passed the estimated sample size 265 (See next section – Sample size). The respondents were asked to write down their answer in the questionnaire sheet or given the link to the online questionnaire depending on their preference. The balance of male and female in the sample was also taken into consideration.

Another Internet-based sampling method was also implemented along with the quota sampling. With the company’s permission, the questionnaire was uploaded to Ninomaxx’s official website in the form of pop-up survey. This is an online probability sampling method called intercept. This type of sampling can provide data which is generalizable to the population of individual visiting the website, using “cookies” to avoid the submission of multiple surveys from the same computer (Fricker, 2008). We, however, did not rely too much on this sampling source due to the low response rate, typically just
15 to 30 percent (Couper, 2000), and the potential bias of response (for example, there might be a certain type of people who were willing to answer the pop-up questionnaire.)

3.5.2 Sample size

There are many approaches available to calculate sample size and even so, selecting an appropriate number for a research study is often a hit or miss (Sapsford & Jupp, 2006). Adequate sample size, however, can minimize the chances of finding type I and type II errors when doing data analysis and is necessary for our study. The survey system (Creative Research Systems) suggests this formula to calculate the sample size:

\[
SS = \frac{Z^2 \times (p) \times (1 - p)}{c^2}
\]

Where:

SS: Sample Size

\(Z\) = Z value. The Z value depends on the confidence level, which was decided to be at 95%, and therefore is 1.96.

\(p\) = percentage picking a choice, expressed as decimal. Since our scale is from 1 to 5, the percentage of picking one scale in a question is 20% = 0.2.

\(c\) = confidence interval, expressed as decimal. Confidence interval was chosen as 5% = 0.05.

The estimated sample size, thus,

\[
SS = \frac{1.96^2 \times (0.2) \times (1 - 0.2)}{0.05^2} = 246
\]

3.6 Coding and recording data

According to Hyman and Sierra (2009), Coding is the process of grouping and assigning numerical value to different responses of questions derived from answer forms. Codes are later used for interpreting, classifying, evaluating data and also recording it in to computer software for analysis.

For the qualitative data derived from questionnaire, we added numerical value to them and regarded them as dummy variables. In details, with the question asking for gender of respondents, the ‘male’ response will be assigned numerical value 0 and the ‘female’ response will be assigned numerical value 1 accordingly. For the other close-ended questions that generate more than two possible responses, the numerical value available for coding can be extended to 3, 4, and 5 to fit the data. In regard to the question asking respondents how often they use Internet, the responses ‘Once a month or less’, ‘Once a week’, ‘Several times a week’, ‘Everyday’, ‘Several times a day’ are coded 1, 2, 3, 4, 5 re-
spectively. The later question ‘How often do you purchase products online?’ also provides 5 alternatives for respondent to choose from and these alternative responses are coded in the same way as previous question with the least frequent as 1 and the most frequent as 5.

The data retrieved from the questions that require scale point measure from 1 to 5 is all numerical data. Thus, there is no need to modify these data in any way in order to for them to make statistical sense. The data collected from questions that ask for year of birth is transformed into information about age of respondents. It is then coded 1,2 and 3 according to three age groups 17 to 22, 23 to 26 and 27 and older respectively.

The coded qualitative data and quantitative data are then manually recorded into the computer program Statistical Package for the Social Sciences (SPSS). The program will recognize blank field as missing data, thus, there is no need to code the response that is left unanswered by respondents (Pallant, 2005).

3.7 Data analysis

We decided to use descriptive statistics and inferential statistics as the tools to analyze the gathered data. Descriptive statistic is demonstrated as various calculations that aim to provide an accurate summary of data’s information content (Jargowsky, 2005). Descriptive statistic helps the study illustrate the distribution characteristic of variables. On the other hand, inferential statistic allows researchers to draw legitimate inferences about population from the studied sample. Furthermore, it facilitates clarifying underlying characteristics of the population. (Jargowsky, 2005)

The statistical means that we used for analyzing purpose is various nonparametric statistics test. Nonparametric tests do not make strong and rigid assumption about population and also is not limited to interval data (Siegel, 1988). Furthermore, the tests are suitable for ordinal and distribution-free data which is identical to this thesis’s situation. Most of the study’s data is positively skewed and does not fall into a normal distribution, hence, violates assumption of standard parametric test. It is also suggested that the responses of item from scale point data only suggest an ordered structure and not interval values with mathematical sense regardless of scaling types (Svensson, 2001). As a result, rating scale data should be treated as ordinal or ranked data and should be analyzed with non-parametric statistics only.

The Statistical Package for the Social Sciences (SPSS) version 18, as known as PASW 18, is used to record and analyze all data derived from responded questionnaires. Also, by SPSS together with Microsoft Excel 2007, the authors generated various graph and table for presenting empirical data. Furthermore, SPSS serves for analyzing statically data. Finally, based on the results that we get from SPSS, the reliable conclusions will be made to answer the thesis questions.

For ordinal data, many different tools are used in SPSS, such as descriptive analysis including median, quartile, and various nonparametric analyses, to evaluate results. Sums
and difference of data from rating scales are inappropriate and only value that present distribution of data are useful for analysis (Svensson, 2001), hence, the usage of median and quartile. The detail of statistic test, correlation test carried out among different variables derived from ordinal answers of customers regarding the questionnaire will be analyzed and explained to achieve statistical sense. Different nonparametric statistic techniques are applied for each research question.

Binomial sign test is applied for research question 1. Binomial sign test aim to investigate whether there is balance between two different outcomes (Jupp, 2006). In various cases, binomial sign test can be used to study the Median of population that whether it is equal to or different from a specified value. The test does this by dividing the data into positive value that is higher than the specified value and positive value otherwise. Then the probabilities of positive and negative value are investigated to conclude if they are equally distributed. Accordingly, binomial sign test are used in research question 1 to test investigated factors’ median values with the specified value of 4. Conclusion regarding whether investigated factors add value for customers will be drawn in accordance to results of the test.

In research question 2 that aim to find how respondents, who are belong to different groups characterized by demographic and Internet related trait, answer differently in the researched factors, Mann-Whitney U test, Kruskal-Wallis test and Spearman’s rank order correlation test are used. Mann-Whitney U test is a nonparametric technique to investigate whether there is difference in ranked scores between two independent samples (Crammer and Howitt, 2000). The test is accordingly suitable to examine data between two independent groups in one variable. For our thesis, the test is used for projecting the difference between two unrelated group typified by gender and response type. Similarly, Kruskal-Wallis test also aims to indicate the difference in ranked scores among independent samples (Crammer et al, 2000). However, Mann-Whitney U test is used for two unrelated samples while Kruskal-Wallis test is used for three or more. The application of the test in this thesis is to inspect the difference in respondents’ reply among three age groups which are fitted to be three independent groups of samples. On the other hand, Spearman’s rank order correlation is used to find the relation between customers’ response and their frequency of using Internet as well as frequency of purchasing online. Spearman’s rank order correlations test strive to investigate whether two or more variables which is measured in ordinal scale are related (Vogt, 2011), thus, is suitable for the study’s intention mentioned above. The test is a kind of correlation test and aim for the correlation coefficient value.

3.8 Good measurement

A good method of data collection should be “an accurate counter or indicator of what we are interested in measuring” and “easy and efficient to use” (Cooper & Schindler, 2008). To evaluate whether a measurement tool is good or not, three main criteria are used: validity, reliability and practicality (Cooper & Schindler, 2008).
3.8.1 Reliability

Reliability is a measurement’s characteristic dealing with the accuracy, precision and consistency of the yielded results from a measurement (Cooper & Schindler, 2008). A research instrument can be tested to be reliable by determining if the responses remain relatively the same with repeated measurements (stability), at different times and under different conditions (equivalence) (Cooper & Schindler, 2008). The problem of reliability mostly concern bias, either coming from the respondents or the interviewers.

As the questionnaire was self-completed, there was no presence of an interviewer asking the participants directly; this helped eliminating the interviewer bias (tones, manners, ways of wording and asking of questions used by different interviewers) and interviewer error (interviewer’s misinterpretation of collected data). The lack of interviewer also encouraged the respondents to be more honest when answering sensitive topics (e.g., Year of birth) or topics in which they were pressured to answer in ways that the society expected them to (e.g., Environmental issue). In order to further reduce the bias due to the content of the questionnaire, we tried to provide very non-sensitive, neutral questions in the designing process. Additionally, the timing when answering the questionnaire can also affect the answers, one person can give different responses in different days of the week or even different times in a day. The report coming from our survey online service, however, showed that respondents of our survey accessed the website and answered the questionnaire not in any specific time or day but rather in a wide range of timing. By this, we could ensure the effect of mood or feeling differ due to the different timing was greatly cut down. A retest in four respondents that already participated in the pilot test was also conducted to show that the measure supplied consistent responses. The time between the pilot test and the re-test was around a week to 10 days, long enough for them to not remember their answers in the first test but short enough for any event that made them change their opinions greatly not to happen.

3.8.2 Internal Validity

Quite different from the reliability, validity is defined as the accuracy of the measurement of which the exactness of the assessment relative to what actually exists (Burns & Bush, 2000: 332). During the process of measuring data, the respondent may have faulty memory, misunderstanding, or even a bad guesser which causes his responses to be inexact from reality. In marketing research field, there are four different types of validity involved in measurement as: face validity, predictive validity, convergent validity, discriminant validity.

Face validity refers to the degree to which the question “look like” it measures what it is supposed to measure. Researcher should go throughout the design of the questionnaire to constantly evaluate face validity. When compiling the questionnaire, many sources were used to develop the right questions. The scientific article “The value of Internet commerce to the customer” (Keeney, 1999) used as the main foundation for our questionnaire is credible because it was referred by a large number of researchers in the field. We also carried out pilot test and revised the questionnaires many times to enhance the validity of the question until it passed our subjective evaluation.
Predictive validity relatively answers for the question “does the measure predict another measure as we expect?”. In our questionnaire, we asked respondents to indicate their perceptions for various factors of e-commerce on a rating scale. The fact that these factors are interrelated ensures the predictive validity of the study. Also, each individual factor in our questionnaire contributes to and also measures the total value perceived by customers.

Convergent validity occurs when the researcher uses two different methods or sources of data collection for the same piece of information. If the two different methods produce similar results, convergent validity is demonstrated. Since we have only one method of collecting data, the convergent validity is not relevant to our approach.

Discriminant validity indicates the questions that measuring different objects should yield results with distinguished meaning. In our questionnaire, the fact that each question clearly aimed at different matters to value results in existence of real differences among questions, and there is no doubt to the validity of its measurement.

Developing valid measures can be a time-consuming and cost-spending task. In order to enhance the validity of measurement, we try to use reliable primary sources to design questionnaire as well as conduct the pilot test to ensure the three kinds of validity.

3.8.3 Generalizability

Generalizability, as known as external validity, refers to the degree to which the results from the study conducted can be applied beyond the sample (i.e., population, location). The researcher may want to generalize from a sample of observers to the universe of observers, or from a sample of items to the universe of items.

Conducting a study within a small organization like Ninomaxx usually does not allow generalizing its results to all population or having the same applicability to other samples. However for our study, the benefit of using the Ninomaxx case mostly came from the allowance for us to narrow down the population under study; limiting it into the age group of 17 – 30, which we found really interesting to study. The specific situation of the company did not have a significant impact in the process of carrying out the research, helping the findings not be restricted and have more generalizability value. Put it differently, the outcomes of our thesis are general for the most part. Consequently, although borrowing the case of a particular firm, our findings and practical implications can be easily adopted to similar organizations (i.e., other Vietnamese business doing e-commerce in apparel industry). As part of the research, the current situation and especially the Vietnamese customers’ perception about shopping clothes online were carefully studied. These could be very useful for other organizations having intention of selling apparel products, or simply doing e-business in this potential market.

3.8.4 Practicality

Finally, practicality concerns with the measurement’s factors of economy, convenience and interpretability (Cooper & Schindler, 2008). In other words, a method of data collection is practical if it is economically-efficient, convenient, and possible for people other
than the surveyors to interpret the results while still keeps a great level of validity and reliability. Once again, without the usage of interviewers, our measurement method is not costly and relatively convenient. We also provide details of the functions the survey was designed to measure, the procedure in which it is developed, evidence about reliability and many other things to facilitate the interpretation of the collected responses. Our method of data collection, thus, can be said to be fairly practical.

3.9 Limitations

As we aimed to collect quantitative data, the questions in our questionnaire became rigid and did not allow flexibility. Also, in order to encourage our targeted customers to take part in the survey, we avoided using open-ended question which would require effort and commitment from respondents. However, as the result did not mean for exploratory purpose, the limitation of rigidity and lacking question for new knowledge could be tolerated.

Beside several advantages of survey method, conducting questionnaire brings many disadvantages for both respondents and conductors. Our structured questions and fixed response alternatives may result to lack of validity for certain types of data such as beliefs and feelings of customer (Naresh K.Malhotra, 2004:169). Another limitation is probably the misunderstanding of the question in term of translation since the survey translation is expected to stay close to other features of the source text (Janet Harkness 2003). However, we must change some context as well as words to match up neatly across language. About the ethics problem in distributing our online survey, it is impossible to prevent one respondent from subjecting to multiple times, which is only limited by the IP address. It, therefore, can lead to the wrong sampling selection. Likewise, the second way of distributing our survey in which we asked friends and families to print out and distribute them is also subjected to error as we do not directly instruct respondents and collect data. However, the validity and reliability of our questionnaire’s measurement compensate and eliminate the possibility of uncontrollable error.

Another limitation was the usage of nonparametric statistics that is less powerful and more susceptible to error in comparison to usual parametric statistics. However, this restraint could be overcome by large sample size that makes the tests more robust. Also, nonparametric tests are more suitable for rating scale as mentioned in Data Analysis section above.
4  Empirical Data

4.1  Investigated factors

Data from concerned factors, surveyed from prospective customers of Ninomaxx, will be presented according to grouping order of the questionnaire. Data that is in its raw and explicit form is presented in this section as a base providing information for subsequent in-depth statistical analysis. This section also aims to visualize and speculate customers’ perception through the trend of their answer regarding various elements of e-commerce. The speculation will be verified by statistical analysis. We employed bar graph to present the frequency of survey participants’ responses when they were inquired about various factors and were asked to answer on the scale from 1 to 5. Frequency counts are suitable to quantify variables for nonparametric tests as various nonparametric techniques apply comparison between variables or groups within 1 variable based on raw count.

Access to information

![Figure 4-1 : Frequency of participant's responses in the group Access to information](image)

Figure 4-1 covers responses of section ‘Access to information’ in the questionnaire. Both questions in this section require respondents to answer based on the scale from Not important to Very important which are represented by number 1 to 5 respectively. The bars visualizes general trend of respondents that is to consider significantly the importance of information about apparel products. The number of respondents choosing each choice increases in accordance to the order of scale point from low to high. There is no distinctive difference in overall answers to question 1 and 2 with their peaks at 179 and 162 responses choosing number 5 respectively. Availability of information and accuracy of products’ color are considered as very important by most survey’s participants.
Shopping enjoyment

Responses of section ‘Shopping enjoyment’ including question 3,4,5 are represented by the chart above. Question 3 is asked on the scale from not important to very important, while the scale for question 4 and question 5 is from totally disagree to totally agree. In this group, only question 5 derives an totally upward responding trend from 1 to 5 and peaks at 131 participants choosing choice number 5. The green bars of question 5 projects from perception of customers the moderate importance of being able to interact with sellers when shop online. On the other hand, the replies regarding question 3 and question 4 show a relatively fluctuating shape and do not reflect the significance of factors represented by these two question.

Shopping convenience

Figure 4-3 : Frequency of participant’s responses in the group Shopping convenience.

- 6) To what degree is the easy usage of website’s interface important?
- 7) I am willing to spend time selecting fashion products.
- 8) How important is the ease of payment?
- 9) It is necessary to explicitly guide me throughout the buying process.
The next section in questionnaire ‘Shopping convenience’ is depicted by figure 4-3. Question 6 and question 8 are about ‘easy usage of website’s interface’ and ‘ease of payment’ respectively guide respondents on the scale from Not important to Very important. The other two questions in the group take the scale from Totally disagree to Totally agree like other previous statement type questions. Question 6, question 8 and question 9 have fairly equally increase in the number of respondents choosing scale ranging from low to high. Question 8 representing ease of payment is a little ahead of the other two and has highest number of customers picking the 5 point choice. Customers seems to value ease of payment highest among the group. On the contrary, the trend of overall responses to question 7 is moderately flat with equally many responses on scale 3,4,5. Customers generally show some tolerance to the amount of time consumption for selecting fashion products.

Product selection

Figure 4-4 expresses the responses of the four questions from the ‘Product selection’ group, which covers product-related objectives. Again, the number of response choosing each option also rises as the scale point increases with most participants choosing 5. Accordingly, respondents consider these objectives quite important. Unlike the big gaps between the number of respondents choosing points 1, 2 and the rests, the differences among three other options are not very drastic. The variety in choice of quality and price (question 11) and the availability of product at the time of purchasing (question 12) are slightly more important than the range of product selection (question 10) and the ease of comparison shopping (question 13) as being depicted by corresponding number of respondents that rate 5 for each question.
Product features

Figure 4-5: Frequency of participant’s responses in the group Product features.

- 14) Low product price is very important to me.
- 15) Maximized product value is very important to me.
- 16) How important is it that the seller ensure quality of product?

Figure 4-5 presents the responses of questions from the ‘Product features’ group, assessing the value of low product price (question 14), maximizing product value (question 15) and ensuring quality of product (question 16) to customers. Ensuring quality is the only objective in which the number of responses increase drastically as the scale point raise from 1 (not important) to 5 (very important). It shows an absolute dominance in comparison to the two other objectives, with 186 out of 265 respondents value it as very important to them. On the other hand, the answers of participants in response to product value and low product price do not illustrate the important of these factors.
Figure 4-6 covers group ‘Security’ in the questionnaire, which includes the safety of accessing to the website (question 17), strong brand awareness (question 18), the seller’s trustworthiness (question 19) and the safety of using the product (question 20). In general, the importance of the three factors in question 17, 19 and 20 are perceived almost the same by the respondents. The surges in number of response in conformity to the increase of scale point also indicate a relative significance of the represented factors. On the other hand, while also following the similar trend to other questions, the growth level in response to the incremental of scales point of question 18 are lower than the other three, thus, corresponding factor is less valued.
Figure 4-7 regards to section ‘Payment’ in the questionnaire including four questions 21, 22, 23, 24 with four different scales accordingly from Not agree to Totally agree, Not important to Very important, Not worried to Very worried, Not concerned to Very concerned, which are all represented by number from 1 to 5. Generally, the number of respondents choosing each choice relatively raises in accordance to the increase of scale point. The gap between scale point 1, 2 and the rest is significantly high. The number of people concerning about those facts and consider them as important is relatively high and increases in accordance to the scale. Above all, respondents are concerned the most about their personal information being misused when they do online payment.
Delivery of product

Figure 4-8: Frequency of participant's responses in the group Delivery of product.

- 25) To what extent are you worried about shipping errors?
- 26) How important is the delivery time to you?
- 27) How concerned are you about shipping fee?
- 28) To what extent are you willing to travel to collect the product?

Figure 4-8 expresses the response for ‘Delivery of product’ section in the questionnaire. As figure 4-7 above, those four questions with increasing scale from 1 to 5 equivalent to Not worried to Very worried, Not important to Very important, Not concerned to Very concerned, Not willing to Very willing in accordance to question 25, 26, 27, 28. For questions 25, 26, 27, the number of respondent increases regularly from scale 1 to 5 and the difference between the number of respondents choosing scale 1 and scale 5 is quite sharp. Meanwhile, the number of respondents considers the fact of willing to travel to collect the product (question 28) from scale 1 to 5 is relatively equal. Shipping error is the most concerned issue with 120 respondents judged scale 5 of Very worried.

Others

Figure 4-9: Frequency of participant's responses in the group Others.

- 29) How important is it to be able to return products?
- 30) Corporate social responsibility of the fashion company is important to buyers.
- 31) To what extent are you concerned about environmental impact of the fashion company?
Figure 4-9 shows the ‘other’ issues related to return policy and the responsibility of the company providing products. While there are only 4 respondents believe that it is Not important to be able to return products, 133 respondents inversely think that it is Very important to have that ability and 92 respondents with Important (scale 4) answer. Concerned about Corporate Social Responsibility of the company and environmental impact of the fashion company, the number of respondent increases along with the scale from 1 to 5. The variety of those two questions in scale 3, 4 and 5 is not drastically noticeable. Accordingly, among three factors, ability to return with 133 respondents rate scale 5 is the most valued by respondents rather than the external responsibilities of company.

4.2 Characteristics of respondents

This section is the presentation of the data collected from the first part of the questionnaire, in which respondents needed to give out their age, gender, the frequency of their Internet using and online shopping. This information will then be collaborated with the data conducted from the main section to answer the second research question (How do the demographic and Internet related characteristics of customers influence their perception?) in the analysis later. Different characteristics of respondent may or may not influence their perception of the adding value factors found in the Research question 1. In our case, we first choose age and gender since these two are the basic characteristics which may cause the differences in opinion. The frequency of using the Internet and the frequency of online shopping can also have impacts in customers’ perception; since people with more experience of buying products online or using the Internet more frequently would more likely to feel more comfortable with these concepts and perceive the customer value differently to the others who are inexperienced.

4.2.1 Demographic characteristics

Gender

Figure 4-10: Distribution of respondents by gender

Figure 4-10 is generated from responses about gender information inquired from survey participants. Among 266 respondents, 57.52% of them are female while the remaining
42.48% are male. Even though there is small disproportion between the two gender groups. The number of respondents in each group is still large enough to obtain statistically significant result.

**Age Groups**

**Figure 4-11: Number of respondents by Age Group**

Figure 4-11 depicts the distribution of age among all respondents. Even though the questionnaire requested participants’ year of birth, the information is then transformed and divided into three age groups. The reasoning for dividing respondents into three age groups is to investigate whether there is any different in their opinions. The cutting point of 22-23 is chosen because it is the turning point of customers from being dependent to being employed or being able to earned money. Similarly, the other cutting point of 26-27 is a milestone of becoming contracted employees for most or at least having decent working experiences. In other word, being 26-27 is often the point of time that raises customers’ income level. Also, the three groups are expected to differ in their opinions due to their level of being exposed to retails market. The number of respondents belong to each age group are 109, 104, 52 for the group 17-22 years old, 23-26 years old, 27 years old and above respectively. All groups have adequately large number of answerers for statistical analysis and comparison.
4.2.2 Internet related characteristics

Response type

During our process of collecting responses offline, participants were inquired whether they wanted to answer the questionnaire online. Accordingly, they could choose to fill the answer form right at the point of inquiring or receive the link and do it online later. Thus, we divided our respondents by their type of response. At first, there were more online questionnaires collected, however, during editing data, many were eliminated due to their quality and reliability. As a result, there are fairly equal number of online questionnaire answerers and offline ones. Details are illustrated by figure 4-12 with 51.13% online response and 48.87% offline response among survey participants.

Frequency of using the Internet

Figure 4-13 illustrates how frequently the respondents of our survey use the Internet, divided by people who completed the questionnaire online and offline. There is a possibility that people using the Internet more often will more likely to shop product online since they spend more time surfing websites and are familiar with shopping online and the Internet in general. Overall, participants who chose to do the survey in our website tended to use the Internet more frequently than the others who preferred to fill their opinion in the answer sheet. This can be explained like mentioned above that respondents use the Internet more often would probably feel more comfortable interacting with the online survey. Nevertheless, there are large amounts of offline respondents use the Internet quite regularly as 33% of them go online several times a week and another 34% surf the Internet everyday. Meanwhile, almost half of the online participants use the Internet everyday and 43% of them go online several times a day.
On a side note, we also did some bar charts for the frequency of using the Internet sorted by age and gender to make more use of the collected data. By gender (Figure 4.14 - Appendix 2), in general, both sexes use the Internet relatively often as very small numbers of them only go online once a month or less or once a week (around 5% for both sexes). Female participants surf the Internet more frequently than their male counterparts with 45% of them go online everyday (male – 37%) and 30% use the Internet several times a day (male – 28%). By age group (Figure 4.15 - Appendix 2), respondents aged from 23 – 26 seem to use the Internet most frequently as the percents of people in this group rarely go online are very low (once a month or less – 1%, once a week – 2%). They also have the highest percent of respondents using the Internet several times a day – 40% - in comparison with 23% of group aged 17-22 and 21% of group aged over 27. The patterns of Internet using frequency of these two latter groups only show slight differences.

**Frequency of shopping online**

Figure 4-16 illustrates the Frequency of shopping online by response type based on the way of distribution questionnaire: Online and Offline questionnaire. The scale ranks from Never to Once a year, Several times a year, once a month, and Several times a month. As the graph expresses, the difference about the frequency of shopping online...
between the online and offline respondents is quite obvious. While 73 percent of respondents who never shopping online is offline respondents, and less than that, 38 percent of respondents doing online survey never shop online. In contrast, the number of online questionnaire respondents doing online shopping Several times a month is 9 percent, higher than 1 percent of offline questionnaire respondents doing the same frequency. The same situation happens with people doing Several times a year, most of them (36 percent) are online questionnaire respondents, meanwhile, only 12 percent response is offline questionnaire respondents. However, there is not much distinctive difference between online and offline respondents doing online shopping Once a year and Once a month. In conclusion, online questionnaire respondents do more online shopping than offline questionnaire respondents.

We also did the same things to the respondents’ frequency of purchasing products online. By gender (Figure 4-17 – Appendix 2), the overall impression is that male respondents shop online more often than their female counterparts. More women never try shopping online while more men buy products from online retailers several times a month than women. These results might come from the fact that men are usually more interested in electronic devices, which often is one of the most popular categories in online retailing sales. By age group (Figure 4-18, Appendix 2), we can conclude that people from 22 to 26 years old shop online the most frequently among three groups of age, with respondents aged from 27 – 30 comes close behind. This can be explained by the typical income of
each age group, the first group aged from 17 to 22 is mainly high school and university students who have limited financial budget. The second group is people from 23 to 26 years old who have a few years of working and can financially support themselves, they are, therefore, into shopping and can make up for a big part of the potential customers. The third group aged over 27, although have more stable and relatively good finance, do not go online as often as the younger group as we can see from the previous section. Plus, from our own experience, they are a bit older and many Vietnamese people at this age are still not as familiar with Internet or shopping online as the younger generation.
5 Analysis

5.1 Research Question 1

Which factors create value to potential customers whose purpose is to shop for apparel products online and to what extent?

Research question 1 aims to investigate different factors identified by 31 questions in the main section of the questionnaire. The results will shed lights to the questions of which factors are adding value in the online apparel retailer industry and what are the intensity of these factors’ importance perceived by Vietnamese customers. This question is answered by descriptive statistic (Appendix 5) and inferential statistic (Appendix 3,4).

There is a problem of similarity in many questions’ response as the data is skewed to the high scale point and generally projects the perception of customers of the importance of various represented factors. Hence, to clarify various degrees of value adding factor, terms ‘very strong’, ‘strong’ will be used. These terms are acknowledged after testing the difference of median values from value 4 by using binominal sign test. In detail, after considering the median values of each factor in Appendix 5, the hypothesis for binominal sign test are generated. The null hypothesis H₀ of the test is that median is equal to 4. The alternative H₁ is formulated as a one-tail hypothesis and that is the median is either more than or less than 4, depending on the results from Appendix 5. To be exact, if median value from Appendix 5 are higher than 4, H₁ will be M > 4. Otherwise alternative hypothesis is M<4 providing that median from Appendix 5 are smaller than or equal to 4. The value of 4 is chosen because it divides opinions given by respondents in consideration of various e-commerce factors from averagely appreciated to superiorly valuated.

The conducts of the binominal sign test and its hypothesis for each individual question can be found in Appendix 3. After conducting the test, if median value of a factor is proved to be greater than 4, that factor is classified as ‘very strong’ value adding factor. If it is equal to 4, the investigated factor indicates ‘strong’ influence on creating value for customers. Otherwise, in case that median value is proven to be less than 4, related factor are somewhat mediocre value adding means in comparison to other factors classified as ‘strong’ and ‘very strong’ (i.e., they are not necessarily non-value adding factors, just not as strongly as the others).

Even though different inquiries in the questionnaire are delivered in different scale points, the purpose is only to provide diversity for respondents. In other word, the ratings of all questions with the exception of question 7 and question 28 are to be considered having similar meaning of judging the magnitude of different factors in adding value to online shopping process. Other than the statistical results from our findings, we also try to give some explanations on how and why the participants under study perceive these factors in some certain ways. Keep in mind that both the situation in Vietnam where e-commerce is relatively new and the level of trust for retailers are still not strong; and the particular behaviors of customers toward fashion items – products that offer significant scope for hedonic appeals, help them boosting social image and status (Miranda, 2008) – can possibly have great impacts on the respondents’ perceived value.
Access to information

For both question 1 and question 2, the sample 50% percentile or median is 5 and the sample 25% percentile is 4 (Appendix 5). Accordingly, at least half of the respondents rated 5 for the importance of availability of information about products and accuracy of color demonstration. 75% of respondents rated 4 and above these factors. The sign tests for both question show that the median of responses’ rating is significantly higher than 4 (p-value < 0.05, Appendix 3). In short, survey participants consider the availability of information and the accuracy of products’ color demonstrated on the website as very strong value adding factors to their online shopping process for apparel products. These factors correlate to access to information and maximize product information in Keeny’s model (1999). The significant importance of information in apparel e-commerce is easily interpreted as they are the most critical base for customers to judge their clothing products on the online platform.

- The results from this groups are:

Very strong adding-value factors: Accuracy of color demonstration, Availability of information about products.

Shopping enjoyment

This section was derived from means objective offer Personal interaction and fundamental objective Shopping enjoyment from Keeny model (1999). The group originally included question 29 concerned the importance of being able to return products. However, the questionnaire was built in order of online shopping steps from selecting, purchasing to receiving product and after sales so question 29 was left in the ‘other’ section for the sake of questionnaire’s comprehensibility. For analyzing purpose, question 29 will be included in the ‘Shopping enjoyment’ section. Question 3,4,5 all have 3 for sample 25% percentile and 4 for sample median (Appendix 5). It means that at least 75% of respondents rate the website’s visual appearance, interaction with other buyers and interaction with sellers 3 point and above and at least 50% of them rate 4 and above. Question 29 have sample 25% percentile value of 4 and sample median of 4.5(Appendix 5). These results can be inferred similarly. Sign tests (Appendix 3) suggest that median values for question 3, 4 are less than 4 (p-value < 0.05) and median value for question 5, 29 equal 4 (p-value > 0.05). These results indicate that all four factors add value to the online shopping process of customers while interaction with sellers and possibility to return products are strong factors and the other two are not. The significant need of customers to interact with sellers and to be able to turn back products can be explained by the great degree of uncertainties they may encounter in e-commerce in Vietnam.

- The results from this groups are:

Strong value-adding factors: Being able to return products, Interaction with sellers.
Shopping convenience

The means objective Maximize ease of use and fundamental objectives minimize Time spent and Shopping convenience (Keeney, 1999) were grouped to form this questionnaire’s section. From Appendix 5, question 6 concerned easy usage of website’s interface has both sample first quartile and median of 4. This can only show us that at least 75% of respondents rate 4 or 5 for this criteria. Also, sample median and sample quartiles figure of question 8 and question 9 indicate at least 50% of respondents rate 5 for its factor and 75% choose option of 4 or above. Result from sign tests suggest that the median values of easy usage of website’s interface, ease of payment and necessity of explicit guiding are all equal to 4 (p-value > 0.05, Appendix 3). Accordingly, these three are strong value adding factors to the process of buying apparel products online. Likewise, means objective Maximize ease of use is significantly important and contributes greatly to fundamental objective Shopping convenience. Technology Acceptance Model’s perceived ease of use factor (Davis, 1989) sheds light to this phenomenon of Vietnamese customers valuing greatly the magnitude of ease of use in online shopping.

Question 7 was delivered in an unusual way to survey participants, thus, is analyzed separately in this section. At least 75% of respondents rate 3 and above for their willingness to spend time selecting fashion products and 50% rate 4 or 5. The median of this question’s responses is equal to 3 according to its sign test (p-value > 0.05, Appendix 4), thus, there are neither strong evidences showing agreement of respondents with statement nor evidences showing their disagreement. In other word, time saving for selecting fashion products may not be valued by customers, neither may fundamental objective Minimize time spent (Keeney, 1999). This can be explained by the nature of clothing shopping that is enjoyable for buyers when exploring products and they are more willing to “look around” for the clothes that fulfill their needs.

- The results from this groups are:

  Strong value-adding factors: Easy usage of website’s interface, Ease of payment, Necessity of explicit guiding.

Product selection

Means objectives related to the selection of product, which include Range of product selection, Product variety, Product availability and Comparison shopping, were included in this fourth group. The percentiles from Appendix 5 suggest that in question 10 (range of product), 11 (product variety) and 13 (ease of comparison shopping), at least 75% of the respondent chose scale point 3 (25 percentile = 3) and half of them rate these objectives at point 4 or higher (Median = 4). Similarly, both the sample first and second percentiles (median) for question 12 are 4 (Appendix 5), indicating that at least 75% of the participants rate this factor 4 and above. The sign tests conducted (Appendix 3) show that the median values for question 10 and 13 are less than 4 (p-value < 0.05), whereas in the other two questions it is equal to 4 (p-value > 0.05). The interpretation for these results is that while all factors in this group are adding value to Vietnamese customers, the influences of the variety in choice of quality and price among similar products and product availability to the overall
shopping value are strong, while the rests (range of product selection and ease of comparison shopping) are not.

- The results from this groups are:

**Strong value-adding factors:** The variety in choice of quality and price among similar products, Product availability.

**Product features**

This group concerns the fundamental objectives of *Cost* (14) and *Product quality* (16), and means objectives of *Better purchase choices* (15 – the content of the actual question is “maximized product value”) from Keeney’s Means-Ends model. Product value can be identified as the final value that customers receive after paying for product (suffer a cost) and consuming it (enjoy its quality). The sample 25% percentile and median in the first two questions (14 & 15) are 3 and 4 respectively. Just like other cases, this means that 75% of the respondents rated 3 and above, and at least half of them valued product cost and product value at 4 or 5 point scales. The percentiles for question 16 are higher, with sample first and second percentiles equal 4 and 5, implying that higher or at least 50% of the participants gave the maximized point scale for product quality, and a minimum of 75% rated this factor at 4 and above. Results from the sign test (Appendix 3) suggest that the median values of the responses for question 14 and 15 are both less than 4, in contrast with this value of question 16 which is more than 4. This can be understood that the objectives of cost and product value are not significantly important to Vietnamese buyers who shop for clothes online in the sample. On the other hand, the assurance of product quality from the retailer has a higher impact and contributes greatly to the perceived customer value.

This is an interesting finding as we see the respondents in the sample do not always require a low price for their product or rank it high in their consideration criteria, especially when being placed next to the product quality. Previous research have proposed that more price sensitivity might be found in online customers than people who buy products at physical store due to the increasing availability of comparative price information (Degertu, Rangaswamy & Wu, 2000). Put it differently, online buyers are exposed to information transparency of the Internet and capable of finding different deals and prices for the same or similar products. Nevertheless, Jeffers & Nault (2011) state that customers’ inferences of price really depend on many factors such as specification of the product and other additional costs. As said at the beginning of this section, clothes are personal, make – a – statement items and many people tend to be more eager spending more money on these products. Another study in the U.S customers of the apparel industry (Carpenter & Moore, 2010) also say that different types of customers (those who seek low price and those who seek high quality and reliability) have different opinions on product prices. In our case, the respondents under study are definitely more willing to pay a higher price, just to receive a product with good quality. Aside from the reasons mentioned above, the doubts in the quality of clothing products in Vietnam also induce the need for quality guarantee.
The results from this groups are:

**Very strong** value-adding factor: Product quality.

**Security**

Four questions 17, 18, 19 and 20 were grouped into the “Security” section, which covers the means objectives *System security, Fraud* and the fundamental objective *Safety*. Out of all questions, only question 19 received a 3 in the sample first percentile and 4 in median for its responses. Which means at least 25% of respondents rated the importance of brand name towards the feeling of secured at 3 and lower, while at least half of them gave it a 4 or 5. Likewise, at least 50% of participants chose the option 5 for the safety of accessing to the retailer’s website, of using of the products and the seller’s trustworthiness and at the minimum of 75% rated these factors at 4 or 5. From Appendix 3, the median is equal to 4 in question 17, less than 4 in question 18 and higher than 4 in questions 19 and 20. Accordingly, a strong brand awareness does not contribute greatly to the security group’s value; whereas the *safety of accessing to the website* is a strong value adding factor and the final two – *the safety of using the product* and *the seller’s trustworthiness* are both very strong, influential objectives to the overall perceived value.

Excluding the luxury goods in which brand name has a very high value to customers, with the booming of both retailers and the Internet, nowadays, clothing shoppers are offered the opportunities of approaching to an unlimited amount of product and brand. Several executives in a study of Degeratu et al. (2000) also voiced their opinions that online markets make it more difficult to differentiate product, which ultimately reduces the impact of brand name. Another reason which can be an explanation to the moderate influence of brand name awareness to the respondents in the study is the particular situation in Vietnam, where the reliable international brands are scarce and the local brands are still slowly finding the trust in customers, most buyers have not yet to grasp a strong and clear concept of brand name. The modest belief in brand name is also the answer for the high demand of Vietnamese customers for the guarantee of safety when and after buying the product and the legitimacy of the seller.

The results from this groups are:

**Strong** value-adding factor: Safety of accessing to the Internet.

**Very strong** value-adding factors: Safety of using the product, Seller’s trustworthiness.

**Payment**

The mean objectives *Maximize misuse of credit card, Minimize misuse of personal information* and fundamental objectives *Privacy* were covered by questions 23 and 24 in this section. Once the customers enter the paying process, they have to give out personal information (Name, address, email account…) and face the risk of privacy violation; this is why the fundamental objective *Privacy* is included in this section. From Appendix 5, questions 22, 23, 24 all have the same percentile numbers which are 3 for 25% percentile, 4 for 50% percentile and 5 for 75% percentile. Accordingly, at least one-third of the respond-
ents rated 3 for this criteria, and it increases in accordance with the scale with at least half of the respondents rated 4 and at the minimum of three-fourth of them gave a 5 for these factors. Different from three questions above, question 24 have 4 for sample 25% percentile and have both 5 for sample 50% percentile and 75% percentile. It means that more than half of respondents rated it 4 or 5 for that factor.

Results from sign tests suggest that the median values of providing cash-on-delivery as an alternative method payment (question 21), provide another alternatives beside credit card payment (question 22) are less than 4 (p-value<0.05, Appendix 3). Therefore, it can understand that these factors do not make significant impacts on customers while they shop for clothes online. Meanwhile, the median values of unauthorized use of credit card (question 23) and personal information being misused (question 24) are both equal to 4 (p-value>0.05, Appendix 3). Thus, these two factors are strongly adding value to the shopping online process. The findings show that Vietnamese customers do not necessarily draw back from the idea of paying by their credit card. They are, however, more concern about whether it is safe or not to do so.

- The results from this groups are:

  Strong value-adding factors: Misuse of credit card, Misuse of personal information.

**Delivery of product**

The mean objectives Assure reliable delivery and Maximize accuracy of transaction and the fundamental objective Time to receive product are expressed this questionnaire section. Question 25 refers to shipping errors and question 26 refers to delivery time own the same numbers of percentile, with sample 25% and 50% percentile are 4 and 75% percentile is 5. It means at least 25% of the respondents rated these two factors number 4 and around 75% of them gave them a 5 point scale. Meanwhile, question 27 regards to shipping fee have sample 25% percentile of 3, 50% percentile of 4 and 75% percentile of 5 and be interpreted similarly. The results of the sign tests in appendix 3 show that the median values of shipping errors are equal to 4 (p-value >0.05), while the median values of delivery time and shipping fee are both less than 4 (p-value<0.05). Minimize shipping errors, hence, are perceived as strong value-adding factor, while the other two are not.

Question 28 is constructed in a similar way to question 7 in section shopping convenience. According to quartile values, at least 50% of respondents rate 3 and above for their willingness to travel and receive products. Sign test suggest that the median of this question’s responses is equal to 3 (p-value>0.05, Appendix 4), thus, there is neither strong willing level of respondents to travel for products nor strong unwilling level. Hence, minimize personal travel from Keeney’s model may not be valued greatly by customers. They may be willing to go to a nearby hub and receive products from sellers as long as the other significant values satisfy their demands.

The conclusion can be drawn from the findings of this section is that, regarding shipping and handling of products, Vietnamese customers most of all appreciate the sellers to reduce shipping error to the minimum. They are risk-averse and would possibly be willing
to take higher shipping fee, longer delivery time and even travel to get the products in person than encounter any error that may happen to their product. Once again, we see that apparel shoppers of this market put very much emphasis in the final products that they receive and consume; and would forgo extra cost and effort (at a reasonable level) to have a good product in hand.

- **The results from this group are:**

  *Strong* value-adding factor: Minimize shipping error.

**Others**

The last group contains questions that cannot be placed into any other group, concerning the issues of the company’s corporate social responsibility and their products’ environmental impact. Data in Appendix 5 suggest that the percentiles of the responses from these two questions are identical; both have the first and second quartiles of 3 and 4 respectively. This implies that at least 75% of the respondents gave these two factors a 3 and higher in accordance to their perceived importance while half of them chose the options of 4 and 5. Sign test carried out for these questions also show the same results with the median values are lower than 4 ($p < 0.05$); indicating that although they are both value adding factors, their influences are not strong to the participants’ decision making process when shop for clothes online.

The findings came out not as a surprise for us since from our own experience and observation, many Vietnamese customers do not have a strong awareness of the companies’ ethical values. Since the level of trust is usually not high (can be seen from both previous research and our findings), it is understandable that they focus more on the process of obtaining the product and the items themselves, rather than the companies’ other activities and influences to society.

- **The results from this group are:** No factor from this group is adding *strong* or *very strong* value to the respondents.

**Summary of Research Question 1**

After conducting analysis for Research question 1, here are our summarized results:

From the perception of the 17-to-30-year-old customers in Vietnam, factors that are significantly deserved consideration to them when purchasing clothing products online are: *Availability of information, Accuracy of demonstrating products’ color on the web, Assuring products’ quality from sellers, Sellers’ trustworthiness* and *Safety of using products*. The questions from the questionnaire that represent these factors are number 1, 2, 16, 19 and 20 correspondingly. These factors also correspond to the means objectives *Access to information, Product information, Better purchase choices* and fundamental objective *Safety* in Keeney model. These objectives are marked by their red color in figure 5-1 below.

Aside from the 5 prominent factors mentioned above, there are other *strong* value adding factors of e-commerce from the perception of Vietnamese customers as well. These values can be divided into four groups that share similar characteristics. Firstly, there are:
Easy usage of website’s interface, Ease of payment and Necessity of explicit guiding for customers throughout the buying process; which all tie to the means objective Ease of use in Keeney’s model. This means objective, in turn, is a strong contributor to the fundamental objectives Shopping enjoyment.

Similarly, the strong value adding factors Safety of using website, Concerning about credit card and personal information being use unconstitutionally are tied with System security, Misuse of credit card and Misuse of personal information means objectives from Keeney’s model. Also, they are all related to the final fundamental objectives Safety (mentioned before as very strong adding value factor) and Privacy.

The third group contains factors: Variety in choice of quality and price for products and Product availability which are represented by question 11 and question 12 from the questionnaire respectively. These two factors are the projection of Keeney’s mean objectives Product variety and Product availability which are both product related and have influence to Better purchases choices (mentioned before as very strong adding value factor).

The fourth and final group consists of factors from question 25 and 29 which are: (Minimize) Shipping errors and Being able to return product. These two factors are tied to Reliable delivery and accuracy of transaction (Keeny, 1999).
Figure 5.1: Keeney's means-end approach with emphasis on the apparel industry of Vietnam and its customers.
From the summary of research question 1 and corresponding customers’ responses to the objectives from Keeney’s theory (figure 5-1), it is possible to say that Vietnamese customers are still extensively skeptical with the idea of purchasing apparel products over the Internet, perceiving it as uncertain and unsafe. Consequently, the survey participants view the level of Safety that sellers can provide as a very strong value adding factor of e-commerce. And naturally, it is understandable to see that several other factors that also relate to Safety such as Minimize misuse of personal information and credit card, Maximize system security are considered as significantly important as well. Minimize misuse of information additionally contribute significant to fundamentals objective privacy that is loosely tied to safety.

On the other hand, to overcome the level of uncertainty in purchasing online, respondents require the sellers to provide the expansiveness and accuracy of information provided in the website, as well as the assurance of products’ quality. The accuracy of demonstrating products’ color is particularly very important to customers, since color is one of the easiest characteristic to be demonstrated misleadingly in online platform for clothing items while other characteristics like size can be described through precise numbers. Furthermore, customers also strongly demand personal interaction with sellers as a solution for uncertainty, although at a lower degree than information.

Last but not least, Vietnamese customers also appreciate Shopping convenience and Shopping enjoyment that are resulted from Better purchase choice, range of product selection, the all-the-time Availability of product, Reliable delivery and especially Ease of use and other factors of the whole purchasing process.

5.2 Research Question 2

How do the demographic characteristics and Internet usage influence customers’ perception?

In Research question 2, we decided to cover only factors that show strong or very strong indicators in adding value to e-commerce within apparel industry context (results from Research question 1). Also, in order to simplify the contents for readers, we will only present the influences of respondents’ characteristics (either demographic or Internet related) on these factors that are significant. Otherwise, insignificant statistic results when investigating different factors will be left out of the analysis and it can be understood that there is no notable effect caused by customers’ single or all characteristics to their perception on those particular factors. Research question 3’s findings will be structurally demonstrated by the each particular characteristic of respondents.

Gender

To investigate whether there is any difference in perception of respondents between male and female, Mann-Whitney U test are performed. The null hypothesis here is that there is no difference in ratings for different factors between the two gender groups against the alternative hypothesis that female’s responses are higher than male’s responses in term of point given to these factors. This is a one-tailed hypothesis test and the direction is chosen so that female’s rating point is higher because of the mean rank generated by the test itself.
Most of the probability values from Mann-Whitney U Test suggest that there is no significant difference in responses of most adding value factors between two genders with exception of data of question 2, 11, 16, 20 and 25 in questionnaire. The output of the test for these questions generated by SPSS is shown below. The one-tailed p-value is calculated by dividing the Asymp. Sig. (2-tailed) value in the table to 2. Accordingly, these factors provide p-value which is less than 0.05; thus, alternative hypothesis are accepted, which means the differences between two gender groups are significant within them. Other questions generate p-value that are greatly larger than 0.05 (accept null hypothesis in this case) and are therefore not presented.

### Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>2) How important is the accuracy of products’ color demonstrated on the website?</th>
<th>11) How important is the variety in choice of quality and price among similar products?</th>
<th>16) How important is it that the sellers ensure quality of product?</th>
<th>20) How important is safety of using of product to you?</th>
<th>25) To what extent are you worried about shipping errors?</th>
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<tr>
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<td>7664,000</td>
<td>7686,000</td>
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<td>14081,000</td>
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<td>.074</td>
<td>.081</td>
<td>.062</td>
<td>.100</td>
<td>.015</td>
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</table>

a. Grouping Variable: Respondent’s Gender

### Ranks

<table>
<thead>
<tr>
<th>Respondent’s Gender</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) How important is the accuracy of products’ color demonstrated on the website?</td>
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<tr>
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<td>13938.00</td>
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<td>Female</td>
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<td>139.26</td>
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</tr>
<tr>
<td>Total</td>
<td>265</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) How important is the variety in choice of quality and price among similar products?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>113</td>
<td>124.61</td>
<td>14081.00</td>
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<tr>
<td>Female</td>
<td>153</td>
<td>140.07</td>
<td>21430.00</td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16) How important is it that the sellers ensure quality of product?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>113</td>
<td>124.82</td>
<td>14105.00</td>
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<tr>
<td>Female</td>
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<td>139.08</td>
<td>21140.00</td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20) How important is safety of using of product to you?</td>
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<td></td>
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<tr>
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<td>Total</td>
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<td></td>
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<tr>
<td>25) To what extent are you worried about shipping errors?</td>
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<tr>
<td>Total</td>
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The conclusion after conducting analysis are: Females’ response are likely to rate higher point (or concern more) than male in these factors when shopping for clothes online: Accuracy of demonstrating color on the website, Variety of choice, Assuring products’ quality, Safety of using products and Preventing shipping errors. Among the five factors that is more importantly valuated by woman, three of them belong to the group very strong value added factors. The impression here is that women are more worried and expect more from the products than their male counterparts. One can reason that there are more females who are devoted to products involving their appearance than males (in this case: clothes); as a result, they prefer to have more choices in products (this is actually true to some extent since if you walk into any clothing retailers offering both male and female products, the range of selection for women are much bigger most of the time) and want to make sure they have high quality, safe products in hand. Also, as we can see in the empirical data presentations, Vietnamese females (or at least the females participated in the study) have less experience of shopping online than men. This might explain why they need to be guaranteed that any error, fraud is being kept to the minimum as much as possible.

Age Group

Respondents are divided into three independent groups in accordance to their age. Kruskal-Wallis test is then used to investigate the differences among three groups in their rating to the researched factors. Kruskal-Wallis test is suitable here as it is a test designed for comparison among various independent samples (more than 2). The null hypothesis is that there is no difference in distribution of rating point considering various factors among three age groups. Alternatively, the other hypothesis is that there is at least difference between two age groups among the three. This Kruskal-Wallis test is a two-tailed test and null hypothesis is acknowledged providing that p-value is more than 0.05 (Asymp. Sig. in table). Alternative hypothesis is proven otherwise. In case that the test signify acceptance of null hypothesis for a factor, the result of that factor will not be presented due to being irrelevant.

Test Statistics\(^{a,b}\)

<table>
<thead>
<tr>
<th>Test</th>
<th>(2)) How important</th>
<th>(5)) I should</th>
<th>(11)) How important</th>
<th>(12)) How important</th>
<th>(17)) How important</th>
<th>(20)) How important</th>
<th>(24)) To what extent are you concerned about personal information</th>
</tr>
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<tr>
<td></td>
<td>is the accuracy of</td>
<td>be able to</td>
<td>is the variety in</td>
<td>product</td>
<td>is product</td>
<td>safety of using</td>
<td>you? being misused?</td>
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<td>time of purchasing</td>
<td>of product</td>
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<td></td>
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<td>and price among</td>
<td>safety of accessing to the</td>
<td>shop online</td>
<td>to the</td>
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<td></td>
<td>website?</td>
<td>shop online</td>
<td>time of purchase</td>
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<td>similar products?</td>
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<td>6,323</td>
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<tr>
<td>df</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.049</td>
<td>.022</td>
<td>.003</td>
<td>.020</td>
<td>.011</td>
<td>.009</td>
<td>.042</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test
b. Grouping Variable: Age Group

Kruskal-Wallis tests for factors that show significant result are retained and presented above. All these test generate p-value less than 0.05 (Asymp Sig < 0.05) which prove the
significant differences in perception among three age groups. The factors include accuracy of color demonstration on the website, possibility of interaction with sellers, variety in choice of price and quality, product availability, safety of accessing to website, safety of using products and misuse of personal information when purchasing online. There is no noteworthy difference in perception of respondents among age groups in regard of other factors.

According to the mean rank table below, accuracy of illustrating product’s color are most important for people between 23 and 26 years old whereas the group 27-year-old or older people consider it as the least important among three groups. The youngest group is in the middle with their opinion on this regard. The same results are also applied to the following factors: Safety of accessing to website and information being misused when making online purchase. This can be interpreted by their perception toward certainty. The 23-26 years old group, which would also be newly-employed people, is more concerned about assured usage of their time and money, hence, lead to their perception about accuracy and safety. This group also shop online the most (Empirical data), we can say that they invest to buying products from the Internet the most out of the three groups; naturally they would more worried about their online shopping experience, wanting to make the best out of it. On the other hand, the youngest group which is income-dependent and shop least frequently is less anxious. The oldest group, although do not shop online as much as the middle group (see Empirical data), are more experienced on self-purchasing; thus, they are least concerned about these factors.

For interaction with sellers and the three product-related factors that are presented in question 11,12 and 20 (variety in choice of product, product availability, safety of using the products), opinions of the youngest group and the middle group are somewhat similar whilst the oldest group consider these factors less significant. Mature customers seem to require less from apparel producers in regard of fashion product and personal interaction.
Response type

Similar to the investigation of variation between two gender groups, Mann-Whitney U Test is also used for the difference between the two responses type. For each factor, the null hypothesis of the test is that there is no difference in distribution of response between two response groups. The alternative hypothesis is that online respondents evaluate more highly a factor than offline respondents. The test is also one-tailed test with alternative hypothesis supported by mean rank in rank table below.

According to Mann-Whitney U Test between two independent groups, in this case online and offline response type, significant statistic is yielded for question 1, question 8, question 16 and question 17. The result is showed below with all p-value less than 0.05 (Asymp. Sig.). Accordingly, there are differences between two groups in their responses to these 4 questions.

Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>1) How important is the availability of information about products on the website?</th>
<th>8) How important is the ease of payment?</th>
<th>16) How important is it that the sellers ensure quality of product?</th>
<th>17) How important is the safety of accessing to the website?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>7391,000</td>
<td>6966,500</td>
<td>7438,500</td>
<td>7399,500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>16707,000</td>
<td>16282,500</td>
<td>16754,500</td>
<td>16579,500</td>
</tr>
<tr>
<td>Z</td>
<td>-2,787</td>
<td>-3,197</td>
<td>-2,661</td>
<td>-2,416</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>,005</td>
<td>,001</td>
<td>,008</td>
<td>,016</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Response Type

For all four factors: *Availability of information, ease of payment, assuring quality of products, and safety of accessing to website*, the mean rank (table below) of respondents who favor filling the questionnaire online are higher than those who prefer offline questionnaire. The preference in participating Internet or normal survey indicates the degree of Internet friendly of respondents. Accordingly, online participants value these factors more significant. The reason behind this is that they are more aware of defects related to the Internet. Those who choose to take part in the survey offline may inadequately judge the value of these factors.

Ranks

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>1) How important is the availability of information about products on the website?</td>
<td>Online Questionnaire</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Offline Questionnaire</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>266</td>
</tr>
<tr>
<td>8) How important is the ease of payment?</td>
<td>Online Questionnaire</td>
<td>129</td>
</tr>
<tr>
<td>Question</td>
<td>Offline Questionnaire</td>
<td>Online Questionnaire</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>16) How important is it that the sellers ensure quality of product?</td>
<td>136</td>
<td>129</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17) How important is the safety of accessing to the website?</td>
<td>135</td>
<td>130</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Frequency of using Internet**

The relation between frequency of using Internet and the investigated factors are identified by Spearman’s rank order correlation for ordinal data. The detailed of test of correlation between the frequency of using Internet and the different strong, very strong value adding factors are available in Appendix 6. The information of interest in Appendix 6 is correlation coefficient and Sig. value (2-tailed). As the test specifies, factors that generate a significant value of less than 0.05 are correlated to the Internet using frequency. Accordingly, there is strong indication of relation between respondents’ rate of Internet using and the following factors: *Availability of information about products on the website, accuracy of color demonstrated on the website, ease usage of website’s interface, ease of payment, product availability, assuring product quality, safety of accessing website, seller’s trustworthiness, worry about unauthorized use of credit card and possibility to return product.* (bold questions in Appendix 6)

Most of the correlation coefficient between the frequency of using Internet and the related factors are of small value that is less than 0.25. Cohen (1988) suggests that correlation coefficient value of 0.1 to 0.3 represent small positive relation between two variables. Accordingly, the more frequent respondents use Internet, the more likely they are to rate highly the value of related factors mentioned above. However, increase in frequent usage of Internet only positively influence respondents’ perception on value adding with a small amount.

The 10 values that are significantly related to the Internet usage frequency include those values that are different in customers’ perception between two response type groups as well (See previous section). As a result, this emphasizes more on the statement that the more friendly to the Internet users are, the stricter they are with factors of e-commerce. These 10 factors are connected to objectives *Access to information, Product information, Ease of use, Product availability, Safety and Better purchase choices* in Keeney model. This further stresses the perception of Vietnamese customers about uncertain and unsafe features of purchasing online. Interestingly, customers that use Internet more frequently are more concerned about defects in shopping online for clothes. In other word, it could be speculated that experienced Internet users are really aware of the ambiguous nature of e-commerce in Vietnam market.

**Frequency of purchasing online**
Similar Spearman’s rank order correlation test is carried out between the predictor frequency of purchasing online and the factors of interest. However, there is no suggestion of correlation between this characteristic of respondents and their perception of e-commerce’s value adding factors from the test. It can be concluded that there is no evidence of relation between respondents’ regularity of buying online and their perception about the factors of interest. All the factors are experienced in an almost similar way between first time buyers and experienced buyers.

On the other hands, there is a small positive correlation between frequency of purchasing online and frequency of using Internet (p-value<0.05, table below). The more customers explore online, the more likely they are to carry out online buying act.

<table>
<thead>
<tr>
<th>Spearman's rho</th>
<th>How often do you use Internet?</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How often do you purchase products online?</td>
<td></td>
<td></td>
<td>264</td>
</tr>
</tbody>
</table>

5.3 Research Question 3

What are the managerial implications from the findings that Ninomaxx and the Vietnamese apparel industry can apply to create value for their customers?

This section aims to provide practical suggestions from the findings presented in the empirical data as well as the results of the analyses for Research questions 1 and 2. The implications are theoretical base for apparel companies with target customers aged from 17 to 30 and especially Ninomaxx, the authors’ supporter, to enhance their customer value in e-commerce context.

5.3.1 Implications from identified value-adding factors

Overall, the general impression after observing the findings is that, Vietnamese customers are still very new to the idea of purchasing products through the Internet. Half of our respondents never try shopping online, and even with people that have tried it, they are even more conscious of the problems that they might encounter when shop for clothes online. As we already mentioned about perceived risks in the Theoretical framework section, the more uncertainty customers have, the more risks they perceive. And so in order to create and enhance perceived values for Vietnamese clothing buyers, one of the most vital things right now for fashion firms to do is reduce perceived risks, lessening doubt and anxiety among customers. Considering that customer value safety guaranteed by sellers as one the highest factors, this issue along with other related factors should be where marketers in particular and companies in general focus on, if they aim to Vietnamese apparel products market and approaching the e-commerce channel of sales.
curity and safety of using product is the factors that companies have the most control over among all the safety related factors. Accordingly, in order to enhance customer value greatly, companies need to make sure that their websites is totally safe to access to and their products will cause no trouble to receive and use. More particularly, the security system need to be invested in and is ensured to be protected against malware and benefit-seeking parties. Products need to be made of materials that are of no harm to customers and also allergic reaction need to be taken into consideration. Additionally, safety for customers can be further enhanced by the payment method. Although Vietnamese customers do not necessarily expect companies to provide additional banking method besides credit card or cash on delivery as a substitutive payment choice, these alternatives can be considered as long as they are safe and more secured. Cooperation with bank and other payment methods provider may also enhance the safety vale of companies. Also, information of customers has to be handled with caution and kept confidential with suitable usage. Nevertheless, all these efforts of companies to provide a protected shopping environment for customers would not be valued if customers are not well aware of it. They need to know and be informed through detail, intelligible and straightforward terms, conditions, policy, and warranties. They are also need to be conveyed to customers in a comprehensive and welcoming manner by subtle marketing messages. Customers will then be able to experience the safety value that companies provide and influence their own purchasing decision.

In addition to safety value, the degree of uncertainty in shopping online can also be taken away for customers by adding values that reduce it. As the study specifies above, the uncertain features are proved by customers’ tendency to view greatly the importance of being able to return product, assurance of product quality and minimizing delivery errors. One solution is that companies should provide maximized access to product information (this factor is also considered as important to customers); too much can sometimes brings negative outcomes but an enough amount of precise, accurate and easy-to-comprehend information will more likely to guarantee good customer value. In the particular case of apparel retailers, to maximize access to information for buyers, companies can add explicit and correct information about the product on the website; including size with measurement, exact color, style and even information of usage and place of origin. Some retailers even provide the ‘try-on’ clothes to virtual/real models features for customers, they therefore can visualize how the clothes would look like when being worn. Product availability at the time of purchase should also be focused here as a means to assure customers. Most importantly, companies need to guarantee the quality of their products. With the high level of uncertainty and low level of trust, providing products with good quality or the same quality that is assured in the website is essential to the success of business in Vietnamese online apparel market. Overhyped advertisement should be neglected and being committed to initial specification is needed. Furthermore, regardless of how companies strive to exclude the uncertainty for customers, if they are financially capable, the option of returning products should always be available as a final resort in case of disappointment. In that way, even customers feel doubtful, they are still compensated by the value adding through the ability to be able to return unsatisfying products. Last but not
least, the trustworthiness of companies must be built up by strong relationship with customers.

Finally, Vietnamese customers also find that a convenient and enjoyable shopping experience is important to them in the shopping process. Consequently, companies also need to accommodate these demands. Through the analysis, it is suggested that customers appreciate Ease of use, Product variety, Product availability and Personal interactions and thereby can experience the convenience and enjoyment in their shopping. By the definition of convenience, what firms need to do is helping customers reduce their effort and time in the buying process as much as possible. Although due to the nature of apparel products, the emphasis in time spent is not as heavy (this was also proved through the analysis results). Accordingly, companies ought to simplify the buying process and make the usage of website and paying process very comfortable for buyers. The website’s interface should be eye catching and inspiring for customers, but not too complicated and troublesome for them to interact with. It is also necessary to explicitly guide customers throughout their process of carrying out online shopping act providing that companies are capable of. Personal interaction with sellers can be provided by online support or through vocal devices and maybe even face-to-face support. Shopping experiences for customers should overall be pleasurable and easy.

5.3.2 Implications according to customers’ group

Most important practical implications from our findings were mentioned above, and they are all applicable for the general Vietnamese customers aged from 17 to 30. However, even among the target segment, there are still gaps of perception between customers with different characteristics, as we already see from the results of Research question 2. Some group of people feel more strongly toward several particular important factors than the others; and these facts can actually turn into useful references for companies’ online business strategies. These following implications can benefit both companies that target a single age group or gender, and firms that offer products for a wide range of customer (male, female, teenager, young adult…). With the latter, they often have separate sections for their perspective customers in their websites.

Women in general invest more in clothing items than their opposite sex; and yet between the two genders, they are the ones who have less experience of shopping online (see Empirical data section). This can explain why they demand highly from the products and need more guarantees for the buying process and the products themselves. To be more specific, results from our findings suggest that online fashion retailers in Vietnam should offer their female customers large choices of product; vary in design, price and with good quality. Product descriptions, preview pictures need to be accurate or provide an image of the real product as precisely as possible. Everything to make sure that the final products they have in hands can satisfy their appearance needs. Companies only sell clothes for women also need to present a higher level of guarantee to encourage them buying their products, as well as avoid and minimize any sort of error to prevent them shying away from this new way of purchasing products.
With age groups, customers from the age of 23 to 26 seem to have greater interest in shopping online than buyers aged from 17 to 22 and 27 and above. They are the one who have a bigger budget to shop than the younger group and are exposed more to the concept of shopping online than the older generation. Being more devoted and actually have richer experience of buying over the Internet, they are more aware of the issues with online retailer, especially with safety and security issues; and expect a higher level of commitment from the seller. With this age group, companies should especially emphasize their trustworthiness, making the customers know that they can feel completely comfortable buying their products off the Internet. Vietnamese customers from this group also need more variety in product choices and do not want to encounter out-of-stock situation than their older counterparts. In this aspect, the group aged from 17 to 22 also share the same attitude; possibly because they are younger, being more into fashion and enjoy the ability of looking around for the final products. And once they find an item that they need, they would more likely to want to get it right away and feel unpleasant to find that it is not available to purchase.
6 Conclusion

From the findings of Research question 1, the author fulfilled the main purpose of the thesis which is to identify value adding factors for customers of apparel e-commerce in the context of Vietnamese market. From the perception of fashion customers who are from 17 to 30 years old, there are five factors in e-commerce that are significantly important to them, namely, information availability on the website, accuracy of demonstrating products’ color on the website, seller’s assurance of products’ quality, seller’s trustworthiness and safety of using products. They are all strongly tighten to the degree of uncertainty and perceived risks on the Internet of Vietnamese buyers, who are still relatively new to the concept of purchasing products in online platform. Accordingly, apparel retailers may have a great chance of adding good value to their customers by successfully delivering these five mentioned factors. Additionally, there are eleven other factors that also deserved consideration from retailers as the respondents under study found them to be important as well (See part 5.1), although to a lesser degree in comparison to the five prominent factors. These eleven factors can be categorized in to four groups that related to 4 important areas in e-commerce namely, ease of use, system and payment security, product’s variety and availability, and reliable delivery (See Summary of Research Question 1, part 5.1). Certainly, companies should also take into account these additional factors to enhance customer value.

Remained factors are not as significantly important to respondents as above factors. In order to reduce their own insecurity toward e-commerce, Vietnamese customers would rather spend reasonable level of time and cost to obtain final products with good quality. Therefore, a suitable product price and fee for transferring products from companies and a sophisticated product selection process are acceptable.

Research question 2’s findings prove that there is dissimilarity in perception of customers among genders, age and response type groups. Generally, female and online respondents are more concerned about different factors of e-commerce and valuate them greater than their male and offline counterparts. While among the three age groups, the oldest group seems to be least considered with many factors and judge them as less important than the other younger groups. Furthermore, there is evidence suggests that the more frequently respondents use the Internet and are aware of its fallacy, the higher they value security, ease of use and product information related factors. Companies can use this information to focus on different factors accordingly to effectively create value for their targeted customers.

On a small note, the thesis also provides verification of positive correlation between frequency of using Internet and frequency of purchasing online. The more time Vietnamese customers spend online, the more likely they are to actually shop online.

The thesis’s targeted group of 17-to-30-year-old customers are young and typically fashion conscious, enjoying trends and the idea of polishing themselves by their outfits. They therefore can be the focused customer group for apparel companies in Vietnam as well as around the world. As a result, the thesis’s findings might be interesting and useful references for fashion businesses of any kind. Nevertheless, considerations about cultural
differences, level of development and the buying behavior in the targeted market should be taken together with this research.

The usage of Keeney’s model can be brought to a deeper exploring level than what we have done to obtain more profound findings. The study can also be supported by further research aiming at in-depth underlying reasons behind Vietnamese customers’ perception, investigating why they perceive values in this particular way. Finally, related studies can strive to focus on the marketing solution or supply chain to come up with strategies in accordance to this thesis’ findings.
References


Leo, R. Vijayasarithy, (2002). *Product characteristics and Internet shopping intentions.* Internet Research, 12(5).


Internet Source


Appendix

Appendix 1 – Questionnaires

English Questionnaire

E-costumer value questionnaire – apparel industry

Hello, we are a group of three students at Jonkoping International Business School (Sweden). We, in corporation with Ninomaxx, are conducting a survey on e-customers value in apparel industry. In other words, we would like to know your perception about various factors that you – the buyers – may or may not take into consideration when shopping online for clothes. The results of this survey will be used in our bachelor thesis which focus on the topic as mentioned above. You are selected by us and your opinions are extremely important for both our study and the company that will run an online shop in the coming future. Your answers will be kept confidential and anonymous.

This survey should take 5-10 minutes to finish. Thank you for your time!

I. Please tell us a little about yourself

Your gender: M/F

You were born in (year): ______

How often do you use Internet?

○ Once a month or less ○ Once a week ○ Several times a week ○ Everyday ○ Several times a day

How often do you purchase products online?

○ Never ○ Once a year ○ Several times a year ○ Once a month ○ Several times a month

II. We will present a scenario in which you want to shop online for clothes. On a scale from 1 to 5 please response to the following questions and statements that concern factors you may encounter in this scenario.

Access to information
1) How important is the availability of information about products on the website? Not important 1 2 3 4 5 Very Important

2) How important is the accuracy of products’ color demonstrated on the website? Not important 1 2 3 4 5 Very Important

**Shopping enjoyment**

3) To what extent do you find the website’s visual appearance important? Not important 1 2 3 4 5 Very Important

4) I should be able to interact with other buyers when shop online. Totally Disagree 1 2 3 4 5 Totally Agree

5) I should be able to interact with sellers when shop online. Totally Disagree 1 2 3 4 5 Totally Agree

**Shopping convenience**

6) To what degree is the easy usage of website’s interface important? Not important 1 2 3 4 5 Very Important

7) I am willing to spend time selecting fashion products. Totally Disagree 1 2 3 4 5 Totally Agree

8) How important is the ease of payment? Not important 1 2 3 4 5 Very Important

9) It is necessary to explicitly guide me throughout the buying process. Totally Disagree 1 2 3 4 5 Totally Agree

**Product selection**

10) How important is the range of product selection? Not important 1 2 3 4 5 Very Important

11) How important is the variety in choice of quality and price among similar products? Not important 1 2 3 4 5 Very Important

12) How important is product availability at the time of purchasing? Not important 1 2 3 4 5 Very Important
13) How important is ease of comparison among various products?  
Not important 1 2 3 4 5 Very Important

**Product features**

14) Low product price is very important to me.  
Totally Disagree 1 2 3 4 5 Totally Agree

15) Maximized product value is very important to me.  
Totally Disagree 1 2 3 4 5 Totally Agree

16) How important is it that the seller ensure quality of product?  
Not important 1 2 3 4 5 Very Important

**Security**

17) How important is the safety of accessing to the website?  
Not important 1 2 3 4 5 Very Important

18) Strong brand awareness will make me feel secured when purchase products?  
Totally Disagree 1 2 3 4 5 Totally Agree

19) How important is the seller’s trustworthiness to you?  
Not important 1 2 3 4 5 Very Important

20) How important is safety of using of product to you?  
Not important 1 2 3 4 5 Very Important

**Payment**

21) Fashion company needs to provide cash on delivery as an alternative to electronic payment methods.  
Totally Disagree 1 2 3 4 5 Totally Agree

22) How important is it to have other electronic alternatives besides using credit card for payment?  
Not important 1 2 3 4 5 Very Important

23) To what extent are you worried about unauthorized use of your credit card when you use it for online payment?  
Not worried 1 2 3 4 5 Very Worried

24) To what extent are you concerned about personal information being misused when you make online payment?  
Not concerned 1 2 3 4 5 Very concerned

**Delivery of product**

25) To what extent are you worried about shipping errors?  
Not worried 1 2 3 4 5 Very Worried
26) How important is the delivery time to you?   Not important 1 2 3 4 5 Very Important

27) How concerned are you about shipping fee?   Not concerned 1 2 3 4 5 Very concerned

28) To what extent are you willing to travel to collect the product?   Not willing 1 2 3 4 5 Very Willing

29) How important is it to be able to return products?   Not important 1 2 3 4 5 Very Important

30) Corporate social responsibility of the fashion company is important to buyers.   Totally Disagree 1 2 3 4 5 Totally Agree

31) To what extent are you concerned about environmental impact of the fashion company?   Not concerned 1 2 3 4 5 Very concerned

**Vietnamese Questionnaire**

Bảng khảo sát về giá trị đối với khách hàng trong thương mại điện tử - nhóm ngành may mặc

Thân chào các bạn, chúng tôi là nhóm sinh viên hiện đang theo học tại Jönköping International Business School (Thuy Điển). Cùng hợp tác với Ninomaxx, chúng tôi thực hiện bản điều tra về các giá trị đối với khách hàng trong thương mại điện tử ngành may mặc. Qua bảng khảo sát này, chúng tôi mong muốn được bạn – những người mua hàng tiềm năng – chia sẻ cảm nhận của mình về những yếu tố mà bạn có hoặc không cần thiết để trong quá trình mua sắm trực tuyến. Kết quả của bảng điều tra này sẽ được chúng tôi sử dụng trong luận văn tốt nghiệp cùng chú đề trên. Ý kiến của bạn là đặc biệt quan trọng với luận văn của chúng tôi cũng như là cơ sở xây dựng thành công trang web bán hàng trực tuyến của Ninomaxx sẽ được ra mắt trong thời gian tới. Chúng tôi cam kết bảo mật mọi thông tin của bạn.

Bảng điều tra sẽ mất khoảng 5 đến 10 phút để hoàn thành. Rất cảm ơn các bạn đã dành thời gian!

**I. Hãy cho chúng tôi biết một chút thông tin về bạn:**

Giới tính: Nam/ Nữ
Bản sinh vào năm: ______

Bản có sử dụng Internet thường xuyên?
○ 1 lần 1 tháng hoặc ít hơn ○ 1 lần 1 tuần ○ Nhiều lần trong tuần ○ Hàng ngày ○ Nhiều lần trong ngày

Bản có mua hàng trực tuyến thường xuyên?
○ Chưa bao giờ ○ 1 lần 1 năm ○ Nhiều lần trong năm ○ 1 lần 1 tháng ○ Nhiều lần trong 1 tháng

II. Hãy tưởng tượng bản đang là một người muốn mua quần áo trực tuyến. Trong thang điểm từ 1 đến 5, hãy trả lời những câu hỏi có liên quan đến những yếu tố bản có thể gặp phải trong quá trình mua.

**Tiếp cận thông tin**

<table>
<thead>
<tr>
<th>1) Việc website đăng tải đầy đủ thông tin về sản phẩm quan trọng như thế nào?</th>
<th>Không quan trọng</th>
<th>1 2 3 4 5</th>
<th>Rất quan trọng</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) Độ chính xác về màu sắc của sản phẩm trên website (so với sản phẩm thực tế) quan trọng như thế nào?</td>
<td>Không quan trọng</td>
<td>1 2 3 4 5</td>
<td>Rất quan trọng</td>
</tr>
</tbody>
</table>

**Cảm giác mua sắm**

<table>
<thead>
<tr>
<th>3) Bản đánh giá giao diện bắt mắt trên website quan trọng ở mức độ nào?</th>
<th>Không quan trọng</th>
<th>1 2 3 4 5</th>
<th>Rất quan trọng</th>
</tr>
</thead>
<tbody>
<tr>
<td>4) Tôi cần được trao đổi, tương tác với người mua hàng khác khi mua sản trực tuyến.</td>
<td>Hoàn toàn không đồng ý</td>
<td>1 2 3 4 5</td>
<td>Hoàn toàn đồng ý</td>
</tr>
<tr>
<td>5) Tôi cần được trao đổi, tương tác với người bán hàng khi mua sản trực tuyến.</td>
<td>Hoàn toàn không đồng ý</td>
<td>1 2 3 4 5</td>
<td>Hoàn toàn đồng ý</td>
</tr>
</tbody>
</table>

**Tiện lợi trong mua sắm**

<table>
<thead>
<tr>
<th>6) Việc giao diện của website dễ dàng sử dụng quan trọng đối với bạn như thế nào?</th>
<th>Không quan trọng</th>
<th>1 2 3 4 5</th>
<th>Rất quan trọng</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) Tôi sẵn sàng dành nhiều thời gian để lựa chọn sản phẩm.</td>
<td>Hoàn toàn không đồng ý</td>
<td>1 2 3 4 5</td>
<td>Hoàn toàn đồng ý</td>
</tr>
</tbody>
</table>
8) Việc dễ dàng thanh toán quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

9) Việc được hướng dẫn kỹ càng cách mua hàng trong quá trình mua hàng trực tuyến là rất cần thiết đối với tôi.

Hoàn toàn không đồng ý 1 2 3 4 5 Hoàn toàn đồng ý

Lựa chọn sản phẩm

10) Phạm vi lựa chọn sản phẩm quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

11) Sự đa dạng trong chất lượng và giá cả giữa các sản phẩm cùng loại quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

12) Việc sản phẩm sẵn có tại thời điểm mua hàng quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

13) Việc có thể dễ dàng so sánh giữa các sản phẩm khác nhau quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

Đặc tính của sản phẩm

14) Giá bán của sản phẩm rẻ là rất quan trọng đối với tôi.

Hoàn toàn không đồng ý 1 2 3 4 5 Hoàn toàn đồng ý

15) Giá trị của sản phẩm cao là rất quan trọng đối với tôi.

Hoàn toàn không đồng ý 1 2 3 4 5 Hoàn toàn đồng ý

16) Việc nhà bán hàng đảm bảo về chất lượng của sản phẩm quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

An toàn

17) Độ an toàn khi truy cập website quan trọng như thế nào?

Không quan trọng 1 2 3 4 5 Rất quan trọng

18) Nhân biết lớn làm tôi cảm thấy an tâm khi mua hàng.

Hoàn toàn không đồng ý 1 2 3 4 5 Hoàn toàn đồng ý
<table>
<thead>
<tr>
<th>Số</th>
<th>Nội dung</th>
<th>Skala</th>
<th>Rất quan trọng</th>
<th>Không quan trọng</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Ưu điểm của người bán quan trọng như thế nào?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>Độ an toàn khi sử dụng sản phẩm quan trọng như thế nào?</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21)</td>
<td>Công ty thời trang nên cung cấp thêm hình thức thanh toán bằng tiền mặt khi nhận hàng như một lựa chọn trong thanh toán trực tuyến</td>
<td>Hoàn toàn không đồng ý</td>
<td>Hoàn toàn đồng ý</td>
<td></td>
</tr>
<tr>
<td>22)</td>
<td>Việc có thêm những hình thức thanh toán trực tuyến khác bên cạnh việc dùng thẻ tín dụng quan trọng như thế nào?</td>
<td>Không quan trọng</td>
<td>Rất quan trọng</td>
<td></td>
</tr>
<tr>
<td>23)</td>
<td>Bấn lo ngại như thế nào về việc thẻ tín dụng bị sử dụng trái phép khi dùng nó để thanh toán trực tuyến?</td>
<td>Không đáng lo</td>
<td>Rất đáng lo</td>
<td></td>
</tr>
<tr>
<td>24)</td>
<td>Bạn quan tâm như thế nào về việc những thông tin cá nhân bị sử dụng sai mục đích khi thanh toán trực tuyến?</td>
<td>Không quan tâm</td>
<td>Rất quan tâm</td>
<td></td>
</tr>
<tr>
<td>25)</td>
<td>Bạn lo lắng về mức độ sai sót khi giao hàng như thế nào?</td>
<td>Không đáng lo</td>
<td>Rất đáng lo</td>
<td></td>
</tr>
<tr>
<td>26)</td>
<td>Thời gian giao hàng quan trọng như thế nào?</td>
<td>Không quan trọng</td>
<td>Rất quan trọng</td>
<td></td>
</tr>
<tr>
<td>27)</td>
<td>Bạn quan tâm đến phí giao hàng như thế nào?</td>
<td>Không quan tâm</td>
<td>Rất quan tâm</td>
<td></td>
</tr>
<tr>
<td>28)</td>
<td>Bạn có sẵn lòng để lại để nhận được sản phẩm?</td>
<td>Không sẵn lòng</td>
<td>Rất sẵn lòng</td>
<td></td>
</tr>
<tr>
<td>29)</td>
<td>Việc có thể hoàn trả lại sản phẩm quan trọng như thế nào?</td>
<td>Không quan trọng</td>
<td>Rất quan trọng</td>
<td></td>
</tr>
</tbody>
</table>
30) Trách nhiệm xã hội của công ty thời trang là rất quan trọng đối với người mua hàng.

<table>
<thead>
<tr>
<th>Đáp án</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoàn toàn đồng ý</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Không đồng ý</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

31) Bạn quan tâm như thế nào về những ảnh hưởng đến môi trường tự nhiên của công ty thời trang?

<table>
<thead>
<tr>
<th>Đáp án</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Không quan tâm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rất quan tâm</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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Appendix 2 – Additional figure of Internet Usage by demographic characteristics.

Figure 4-14: Frequency of using internet by gender

Figure 4-15: Frequency of using internet by age group
Figure 4-17: Frequency of shopping online by gender

Figure 4-18: Frequency of shopping online by age group
### Appendix 3 – Detail of binomial sign test (Research Question 1)

<table>
<thead>
<tr>
<th>Binomial Test</th>
<th>Category</th>
<th>N</th>
<th>Observed Prop.</th>
<th>Test Prop.</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) How important is the availability of information about products on the website?</td>
<td>Group 1 ≤≤ 4</td>
<td>87</td>
<td>.33</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>179</td>
<td>.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>266</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) How important is the accuracy of products’ color demonstrated on the website?</td>
<td>Group 1 ≤≤ 4</td>
<td>103</td>
<td>.39</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>162</td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>265</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) To what extent do you find the website’s visual appearance important?</td>
<td>Group 1 ≤≤ 4</td>
<td>184</td>
<td>.70</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>80</td>
<td>.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>264</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) I should be able to interact with other buyers when shop online.</td>
<td>Group 1 ≤≤ 4</td>
<td>166</td>
<td>.63</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>99</td>
<td>.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>265</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) I should be able to interact with sellers when shop online.</td>
<td>Group 1 ≤≤ 4</td>
<td>132</td>
<td>.50</td>
<td>.50</td>
<td>1.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>131</td>
<td>.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>263</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) To what degree is the easy usage of website’s interface important?</td>
<td>Group 1 ≤≤ 4</td>
<td>142</td>
<td>.53</td>
<td>.50</td>
<td>.297*</td>
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<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>124</td>
<td>.47</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>266</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) I am willing to spend time to select fashion products.</td>
<td>Group 1 ≤≤ 4</td>
<td>189</td>
<td>.71</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>76</td>
<td>.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>265</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) How important is the ease of payment?</td>
<td>Group 1 ≤≤ 4</td>
<td>121</td>
<td>.46</td>
<td>.50</td>
<td>.176*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>144</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>265</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) It is necessary to explicitly guide me throughout the buying process.</td>
<td>Group 1 ≤≤ 4</td>
<td>129</td>
<td>.49</td>
<td>.50</td>
<td>.902*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>132</td>
<td>.51</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>261</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) How important is the range of product selection?</td>
<td>Group 1 ≤≤ 4</td>
<td>173</td>
<td>.65</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>93</td>
<td>.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>266</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) How important is the variety in choice of quality and price among similar products?</td>
<td>Group 1 ≤≤ 4</td>
<td>136</td>
<td>.51</td>
<td>.50</td>
<td>.759*</td>
</tr>
<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>130</td>
<td>.49</td>
<td></td>
<td></td>
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<td></td>
<td>Total</td>
<td>266</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) How important is product availability at the time of purchasing?</td>
<td>Group 1 ≤≤ 4</td>
<td>135</td>
<td>.51</td>
<td>.50</td>
<td>.758*</td>
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<tr>
<td></td>
<td>Group 2 &gt; 4</td>
<td>129</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>264</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) How important is ease of comparison?</td>
<td>Group 1 ≤≤ 4</td>
<td>163</td>
<td>.62</td>
<td>.50</td>
<td>.000*</td>
</tr>
<tr>
<td>Question</td>
<td>Group 1 ≤ 4</td>
<td>Group 1 &gt; 4</td>
<td>Group 2 ≤ 4</td>
<td>Group 2 &gt; 4</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>Low product price is very important to me.</td>
<td>177,67</td>
<td>86,33</td>
<td></td>
<td></td>
<td>263,100</td>
</tr>
<tr>
<td>Maximized product value is very important to me.</td>
<td>176,66</td>
<td>89,34</td>
<td></td>
<td></td>
<td>265,100</td>
</tr>
<tr>
<td>How important is it that the seller ensure quality of product?</td>
<td>166,62</td>
<td>100,38</td>
<td></td>
<td></td>
<td>266,100</td>
</tr>
<tr>
<td>How important is the safety of accessing to the website?</td>
<td>116,44</td>
<td>148,56</td>
<td></td>
<td></td>
<td>264,100</td>
</tr>
<tr>
<td>Strong brand awareness will make me feel secured when purchasing products?</td>
<td>166,62</td>
<td>100,38</td>
<td></td>
<td></td>
<td>266,100</td>
</tr>
<tr>
<td>How important is the seller's trustworthiness to you?</td>
<td>116,44</td>
<td>148,56</td>
<td></td>
<td></td>
<td>264,100</td>
</tr>
<tr>
<td>How important is safety of using of product to you?</td>
<td>113,43</td>
<td>152,57</td>
<td></td>
<td></td>
<td>265,100</td>
</tr>
<tr>
<td>Fashion company needs to provide cash on delivery as an alternative to electronic payment method.</td>
<td>157,59</td>
<td>108,41</td>
<td></td>
<td></td>
<td>265,100</td>
</tr>
<tr>
<td>How important is it to have other electronic alternatives besides using credit card for payment?</td>
<td>175,66</td>
<td>90,34</td>
<td></td>
<td></td>
<td>265,100</td>
</tr>
<tr>
<td>To what extent are you worried about unauthorized use of your credit card when you use it online?</td>
<td>145,55</td>
<td>120,45</td>
<td></td>
<td></td>
<td>265,100</td>
</tr>
<tr>
<td>To what extent are you concerned about personal information being misused when you make online purchase?</td>
<td>121,46</td>
<td>142,54</td>
<td></td>
<td></td>
<td>263,100</td>
</tr>
<tr>
<td>To what extent are you worried about shipping errors?</td>
<td>145,55</td>
<td>120,45</td>
<td></td>
<td></td>
<td>265,100</td>
</tr>
<tr>
<td>How important is the delivery time to you?</td>
<td>159,60</td>
<td>107,40</td>
<td></td>
<td></td>
<td>266,100</td>
</tr>
<tr>
<td>How concerned are you about shipping time?</td>
<td>173,65</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Question</td>
<td>Hypothesis</td>
<td>P-value</td>
<td>Significance</td>
<td>Conclusion</td>
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<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Question 1</td>
<td>H₀: M = 4</td>
<td>H₁: M &gt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.000</td>
<td>=&gt; Reject H₀ =&gt; M&gt;4</td>
<td></td>
</tr>
<tr>
<td>Question 2</td>
<td>H₀: M = 4</td>
<td>H₁: M &gt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.000</td>
<td>=&gt; Reject H₀ =&gt; M&gt;4</td>
<td></td>
</tr>
<tr>
<td>Question 3</td>
<td>H₀: M = 4</td>
<td>H₁: M &gt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.000</td>
<td>=&gt; Reject H₀ =&gt; M&lt;4</td>
<td></td>
</tr>
<tr>
<td>Question 4</td>
<td>H₀: M = 4</td>
<td>H₁: M &gt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.000</td>
<td>=&gt; Reject H₀ =&gt; M&lt;4</td>
<td></td>
</tr>
<tr>
<td>Question 5</td>
<td>H₀: M = 4</td>
<td>H₁: M &lt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.000</td>
<td>=&gt; Accept H₀ =&gt; M=4</td>
<td></td>
</tr>
<tr>
<td>Question 6</td>
<td>H₀: M = 4</td>
<td>H₁: M &lt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.158</td>
<td>=&gt; Accept H₀ =&gt; M=4</td>
<td></td>
</tr>
<tr>
<td>Question 8</td>
<td>H₀: M = 4</td>
<td>H₁: M &lt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.088</td>
<td>=&gt; Accept H₀ =&gt; M=4</td>
<td></td>
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<tr>
<td>Question 9</td>
<td>H₀: M = 4</td>
<td>H₁: M &lt; 4</td>
<td>P-value = Sig. (2-tailed) / 2 = 0.451</td>
<td>=&gt; Accept H₀ =&gt; M=4</td>
<td></td>
</tr>
</tbody>
</table>
Question 10
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 11
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.379
=> Accept H₀ => M=4

Question 12
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.379
=> Accept H₀ => M=4

Question 13
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 14
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 15
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 16
H₀: M = 4
H₁: M > 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M>4

Question 17
H₀: M = 4
H₁: M > 4
P-value = Sig. (2-tailed)/2 = 0.163
=> Accept H₀ => M=4

Question 18
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 19
H₀: M = 4
H₁: M > 4
P-value = Sig. (2-tailed)/2 = 0.028
=> Reject H₀ => M>4

Question 20
H₀: M = 4
H₁: M > 4
P-value = Sig. (2-tailed)/2 = 0.009
=> Reject H₀ => M>4

Question 21
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.001
=> Reject H₀ => M<4
Question 22
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 23
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.070
=> Accept H₀ => M=4

Question 24
H₀: M = 4
H₁: M > 4
P-value = Sig. (2-tailed)/2 = 0.108
=> Accept H₀ => M=4

Question 25
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.070
=> Accept H₀ => M=4

Question 26
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.001
=> Reject H₀ => M<4

Question 27
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 29
H₀: M = 4
H₁: M > 4
P-value = Sig. (2-tailed)/2 = 0.500
=> Accept H₀ => M=4

Question 30
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4

Question 31
H₀: M = 4
H₁: M < 4
P-value = Sig. (2-tailed)/2 = 0.000
=> Reject H₀ => M<4
Appendix 4 – Sign test for question 7 and 28 (Research Question 1)

Descriptive Statistics

<table>
<thead>
<tr>
<th>N</th>
<th>Percentiles</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25th</td>
<td>50th (Median)</td>
</tr>
<tr>
<td>7) I am willing to spend time to select fashion products.</td>
<td>265</td>
<td>3.00</td>
</tr>
<tr>
<td>28) To what extent are you willing to travel to collect the product?</td>
<td>266</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Binomial Test

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Observed Prop.</th>
<th>Test Prop.</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) I am willing to spend time to select fashion products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>&lt;= 3</td>
<td>120</td>
<td>.45</td>
<td>.50</td>
</tr>
<tr>
<td>Group 2</td>
<td>&gt; 3</td>
<td>145</td>
<td>.55</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>265</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28) To what extent are you willing to travel to collect the product?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>&lt;= 3</td>
<td>147</td>
<td>.55</td>
<td>.50</td>
</tr>
<tr>
<td>Group 2</td>
<td>&gt; 3</td>
<td>119</td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>266</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Based on Z Approximation.

Question 7

H$_0$: M = 3

H$_1$: M > 3

P-value = Sig. (2-tailed)/2 = 0.070 => Accept H$_0$ => M=3

Question 28

H$_0$: M = 3

H$_1$: M < 3

P-value = Sig. (2-tailed)/2 = 0.042 => Reject H$_0$ => M<3
Appendix 5 – Quartile and Median table (Research Question 1)

<table>
<thead>
<tr>
<th>Question</th>
<th>Number of case</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Valid Missing</td>
<td>25% (Median)</td>
</tr>
<tr>
<td>1) How important is the availability of information about products on the website?</td>
<td>266 0</td>
<td>4.00 5.00 5.00</td>
</tr>
<tr>
<td>2) How important is the accuracy of products’ color demonstrated on the website?</td>
<td>265 1</td>
<td>4.00 5.00 5.00</td>
</tr>
<tr>
<td>3) To what extent do you find the website’s visual appearance important?</td>
<td>264 2</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>4) I should be able to interact with other buyers when shop online.</td>
<td>265 1</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>5) I should be able to interact with sellers when shop online.</td>
<td>263 3</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>6) To what degree is the easy usage of website’s interface important?</td>
<td>266 0</td>
<td>4.00 4.00 5.00</td>
</tr>
<tr>
<td>7) I am willing to spend time to select fashion products.</td>
<td>265 1</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>8) How important is the ease of payment?</td>
<td>265 1</td>
<td>4.00 5.00 5.00</td>
</tr>
<tr>
<td>9) It is necessary to explicitly guide me throughout the buying process.</td>
<td>261 5</td>
<td>4.00 5.00 5.00</td>
</tr>
<tr>
<td>10) How important is the range of product selection?</td>
<td>266 0</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>11) How important is the variety in choice of quality and price among similar products?</td>
<td>266 0</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>12) How important is product availability at the time of purchasing?</td>
<td>264 2</td>
<td>4.00 4.00 5.00</td>
</tr>
<tr>
<td>13) How important is ease of comparison among various products?</td>
<td>263 3</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>14) Low product price is very important to me.</td>
<td>263 3</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>15) Maximized product value is very important to me.</td>
<td>265 1</td>
<td>3.00 4.00 5.00</td>
</tr>
<tr>
<td>16) How important is it that the seller ensure quality of product?</td>
<td>265 1</td>
<td>4.00 5.00 5.00</td>
</tr>
</tbody>
</table>
17) How important is the safety of accessing to the website?  & 265 & 1 & 4,00 & 5,00 & 5,00  
18) Strong brand awareness will make me feel secured when purchase products?  & 266 & 0 & 3,00 & 4,00 & 5,00  
19) How important is the seller’s trustworthiness to you?  & 264 & 2 & 4,00 & 5,00 & 5,00  
20) How important is safety of using of product to you?  & 265 & 1 & 4,00 & 5,00 & 5,00  
21) Fashion company needs to provide cash on delivery as an alternative to electronic payment method.  & 265 & 1 & 3,00 & 4,00 & 5,00  
22) How important is it to have other electronic alternatives besides using credit card for payment?  & 265 & 1 & 3,00 & 4,00 & 5,00  
23) To what extent are you worried about unauthorized use of your credit card when you use it for on.  & 265 & 1 & 3,00 & 4,00 & 5,00  
24) To what extent are you concerned about personal information being misused when you make online purchase.  & 263 & 3 & 4,00 & 5,00 & 5,00  
25) To what extent are you worried about shipping errors?  & 265 & 1 & 4,00 & 4,00 & 5,00  
26) How important is the delivery time to you?  & 266 & 0 & 4,00 & 4,00 & 5,00  
27) How concerned are you about shipping fee?  & 265 & 1 & 3,00 & 4,00 & 5,00  
28) To what extent are you willing to travel to collect the product?  & 266 & 0 & 2,00 & 3,00 & 4,00  
29) How important is it to be able to return products?  & 266 & 0 & 4,00 & 4,50 & 5,00  
30) Corporate social responsibility of the fashion company is important to buyers.  & 266 & 0 & 3,00 & 4,00 & 5,00  
31) To what extent are you concerned about environmental impact of the fashion company?  & 266 & 0 & 3,00 & 4,00 & 5,00  

Appendix 6 – Spearman’s rank order correlation (Research Question 2)
<table>
<thead>
<tr>
<th>Question</th>
<th>Spearman’s rank order correlation</th>
<th>How often do you use Internet?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) How important is the availability of information about products on the website?</td>
<td>Correlation Coefficient: .250</td>
<td>N: 265</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .000</td>
<td></td>
</tr>
<tr>
<td>2) How important is the accuracy of products’ color demonstrated on the website?</td>
<td>Correlation Coefficient: .150</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .014</td>
<td></td>
</tr>
<tr>
<td>5) I should be able to interact with sellers when shop online.</td>
<td>Correlation Coefficient: .005</td>
<td>N: 262</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .937</td>
<td></td>
</tr>
<tr>
<td>6) To what degree is the easy usage of website's interface important?</td>
<td>Correlation Coefficient: .137</td>
<td>N: 265</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .026</td>
<td></td>
</tr>
<tr>
<td>8) How important is the ease of payment?</td>
<td>Correlation Coefficient: .172</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .005</td>
<td></td>
</tr>
<tr>
<td>9) It is necessary to explicitly guide me throughout the buying process.</td>
<td>Correlation Coefficient: .072</td>
<td>N: 260</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .245</td>
<td></td>
</tr>
<tr>
<td>11) How important is the variety in choice of quality and price among similar products?</td>
<td>Correlation Coefficient: .107</td>
<td>N: 265</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .081</td>
<td></td>
</tr>
<tr>
<td>12) How important is product availability at the time of purchasing?</td>
<td>Correlation Coefficient: .177</td>
<td>N: 263</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .004</td>
<td></td>
</tr>
<tr>
<td>16) How important is it that the seller ensure quality of product?</td>
<td>Correlation Coefficient: .220</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .000</td>
<td></td>
</tr>
<tr>
<td>17) How important is the safety of accessing to the website?</td>
<td>Correlation Coefficient: .213</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .000</td>
<td></td>
</tr>
<tr>
<td>18) Strong brand awareness will make me feel secured when purchase products?</td>
<td>Correlation Coefficient: .038</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .534</td>
<td></td>
</tr>
<tr>
<td>19) How important is the seller’s trustworthiness to you?</td>
<td>Correlation Coefficient: .151</td>
<td>N: 263</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .014</td>
<td></td>
</tr>
<tr>
<td>20) How important is safety of using of product to you?</td>
<td>Correlation Coefficient: .092</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .138</td>
<td></td>
</tr>
<tr>
<td>23) To what extent are you worried about unauthorized use of your credit card when you use it for on.</td>
<td>Correlation Coefficient: .143</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .020</td>
<td></td>
</tr>
<tr>
<td>24) To what extent are you concerned about personal information being misused when you make online purchase.</td>
<td>Correlation Coefficient: .081</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .193</td>
<td></td>
</tr>
<tr>
<td>25) To what extent are you worried about shipping errors?</td>
<td>Correlation Coefficient: .117</td>
<td>N: 264</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .058</td>
<td></td>
</tr>
<tr>
<td>29) How important is it to be able to return products?</td>
<td>Correlation Coefficient: .167</td>
<td>N: 265</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): .006</td>
<td></td>
</tr>
</tbody>
</table>