Web Site & Customer Value

— From a Marketing Perspective

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Abstract

Web site plays a very crucial role as a carrier of e-commerce. So how to build a web site with high customer value is the first topic for those companies intending to start B2C business on line. The purpose of this dissertation is to find the key factors of web site which influence customer value. Through literature review, we find the role of web site from a marketing perspective is a medium of marketing, enhancing the marketing mix and endowing the marketing mix with new features; we also find that customer value is a comparison of benefit and cost, having both psychic value and utility value and covering the whole customer activity. On base of these, we identify eight factors of web site which, we hypothesize, influence customer value: Attractiveness, Ease of use, Accuracy, Customization, Responsiveness, Community, Comparison and Assurance. Then a survey with questionnaire method was employed. As to the design and analysis of the questionnaire, the Kano model was used. The result of our survey showed that seven factors of web site - Assurance, Ease of use, Accuracy, Responsiveness, Customization, Attractiveness and Comparison, have positive influence to customer value while Factor of Community, has little influence to customer value. In addition, we introduced Importance index and Indifference index to evaluate influence during analyzing; under this way, we proved the validity and reliability of our investigation.

Keywords: web site, customer value, a marketing perspective
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1 Introduction

This chapter includes background which explains the reason we do this research, definition which is relevant to the key items in our dissertation, the research problem and purposes, the limitation and outline at the end. Our intention is to develop a website model with key factor which influences customer value in the first place, then to proof it by investigation. In the end of this chapter, an outline of this dissertation comes forth. This outline involves a short description of the content and some predicted outcome of the chapters as much as possible.

1.1 Background

According to the Internet World Stats\(^1\), the Internet users have been beyond one billion, about 16% of the population of the whole world. In this sense, a huge potential market has emerged in internet. Many years ago, Vine (2000) has predicted that e-commerce\(^2\) is becoming the current trend. True, as a medium between the suppliers and the customers, Internet has many obvious advantages in terms of marketing. For example, Internet enables customers to reach into the cyberspace and find needed information and make purchase anytime and anywhere (ibid); Internet enables to lower the costs and prices (Jobber et al., 2006); Internet provides improved service with higher quality (ibid).

E-commerce has four forms according to the different origin and different destination of the business in terms of business (company) or pure consumer (customers); they are respectively business to business (B2B), business to consumer (B2C), consumer to business (C2B) and consumer to consumer (C2C). We concentrate on the form of business to consumer (B2C).


\(^2\) E-commerce refers to “commerce that is transacted electronically, as over the Internet”. - source from http://www.answers.com/topic/electronic-commerce, Nov 15-2006
In e-commerce, web site plays a very crucial role as a carrier of e-commerce. First of all, web site has its natural functions with its coming. Ten years ago, Sterne (1996) identifies the web site’s functions of a customer service tool and a marketing medium. Furthermore, he argued that web site can also be used to generate revenue, develop customer service, make market research, improve the company’s public image showing up as a big company instead of a small one, improve name recognition, decrease the cost of order fulfillment, shorten the time frame for acquiring stocks, enhance long-term customer relationships (Zimmerman, 1998). Secondly, the characteristics of web site can be crucial in determining the length of stay, activities having and the tendency for a visitor to return to the site later (Fill, 2002). Thirdly, with the development of e-commerce and customers’ online purchase, the customers’ command of web site’ quality is increasing.

So, how to build a web site with high customer value is the first topic for those companies intending to start B2C business online. In order to achieve this, they should find the key factors of web site which influence customer value, first of all. Our intention of this dissertation is just that.

1.2 Definitions

Website

In some literatures, web site is defined as a technical term, say, a collection of various files with different formats such as text, picture, audio and video (Jobber et al., 2006). And here we tend to consider web site as more than a technical term, while a function term, say, a collection of functions as a marketing medium contributing to the objective of marketing.

Customer value

It seems not easy to define customer value precisely (Piercy & Morgan, 1997; Woodruff, 1997) because of the subjectivity and ambiguity of customer value dynamic with time...
From different perspective, researchers get different meanings or notions. But here we would like to define the customer value as the difference between the benefit customers gain from owning and using a product and the costs of obtaining the product.

1.3 Problem & Purposes

Our research problem is how to build a web site with high customer value. In order to solve this problem, we intend to develop a web site model of key factors influencing customer value.

In accordance with our research problem, we have four purposes.

The first one is to explore the role of web site from a marketing perspective or in a marketing circumstance.

The second is to get a full understanding of customer value.

The third is to develop a web site model of key factors influencing the customer value.

The last one is to prove the model by investigate.

These four purposes can also be considered as our research questions we will answer through our research.

1.4 Limitations

There are three limitations in this dissertation.

First of all, we concentrate on the key factors of web site influencing the customer value, regardless the technical realization.

Secondly, we focus on the form of business to consumer (B2C) in term of e-commerce context and the web site only provides products not service.
Thirdly, our investigation is conducted among the students of the Kristianstad University, which, to some extent, limited the range of the random sample.

1.5 Outline

Here we will show the outline and content of each chapter of this dissertation.

Chapter 2, Methodology: This chapter contributes to how we conduct our research, as to speak, the method of our dissertation. We follow the research process “onion” to explain our method. First of all, the research philosophy and approaches are presented, and then the research strategies follow.

Chapter 3: Theoretical frameworks: This chapter presents the theoretical frameworks of our research. It deploys from two directions. One is to examine the role of web site from a marketing perspective; the other contributes to the research of customer value subordinated by three legs: origin, composition and process, namely, coming from comparisons, involving psychic value and utility value, covering the whole customers’ activity. After that, we develop our research model and hypothesis.

Chapter 4: Empirical frameworks: This chapter presents the methods used to accomplish the empirical investigation. Our aim is to investigate whether the eight key quality dimensions of web site influence the customer value and the degree respectively. We use a survey with a questionnaire to collect the primary data. As to the design of the questionnaire, we use the Kano model which is explained in detail at the beginning of this section. Afterwards, the questionnaire will be discussed, and then the method’s validity and reliability are discussed in the end.

Chapter 5: Result and analysis: This chapter presents the result of our questionnaire in the first place. With the result, the analysis follows. Our analysis concentrates on the intention of empirical investigation – the influence of web site eight factors to customer value. We intend to explain the result and analyze with the consequence of our questionnaire: background of sample; the importance evaluation and evaluation using
Kano model.

Chapter 6: Conclusions: This chapter attributes to the conclusions of our research. Practical implications and suggestions for further research are also presented.
2 Methodology

This chapter contributes to how we conduct our research, as to speak, the method of our dissertation. We follow the research process “onion” to explain our method. First of all, the research philosophy and approaches are presented, and then the research strategies follow.

2.1 Research philosophy

Research philosophy refers to how you think about the development of knowledge. There are three dominate types: positivism, interpretivism and realism (Saunder, Lewis & Thornill, 2003). Figure 2.1 shows the features of the three research philosophy.

![Figure 2.1: The features of three different research philosophies](image)

In brief, positivism holds that the law-like generalizations can be concluded. Interpretivism holds that it is not possible to produce such generalizations; the reality can only be interpreted and understood via finding the reasons behind it. Realism is a mix between the two.

Positivism states that through observation of a social reality, law-like generalization can be concluded, just like in the area of physics or nature. The result should be a highly structured method that can be replicated. Furthermore, the researcher is independent of the subject. This type of philosophy is more suitable to the physical sciences than the social sciences. Our research is about the web site’s customer value, which is too
complex to define as some “law” in the same way as the topic of physical science. In addition, if we conclude our research into some law-like generalizations, the rich insights of the human world is incline to be lost (ibid). From this point of view, we do not think this type of philosophy is suitable to our research.

Interpretivism philosophy focuses on the understanding the subjective reality of their research, understanding the motives, actions and intentions of the subjects. It holds that the world is complex and it is hard to produce law-like generalizations. It is much more suitable to business and management research. It considers business situations as unique and “a function of a particular set of circumstances and individuals” (ibid, 84). Also it thinks that the world is changing. Its task is to “explore the subjective meanings motivating people’s actions in order to understand the situation” (ibid, 84). As to our research, it belongs to the area of business and management and it aims to explore the reason why people regard some features as high value and others low. Which that in mind, interpretivism is more suitable to our research than positivism.

Realism is a mix between positivism and interpretivism. It argues that people intend to share interpretations of socially constructed situations. This fact refers to the existence of commonly experienced stimuli which produce shared interpretation. From this point of view, it believes in the existence of a reality independent of human’s thought. That is to say, the society should be interpreted, meanwhile it is possible to find some external, objective nature about the society, which, to some extent, is similar to positivism. This type of philosophy is suitable to the study of human subjects (ibid). As to our research, the standard of customer value differs from people; we try to interpret this situation as well as try to find some external, objective nature or feature of it which is independent of people’s personality. Hence, we think realism is the most suitable philosophy for our research.

2.2 Research approach

There are two research approaches: the deductive approach and inductive approach. Figure 2.2 shows the difference between deductive approach and inductive approach:
As to deductive approach, researchers develop a theory or hypothesis and then design a research strategy to test the hypothesis. It is a dominant research approach in the natural sciences. The process of this approach usually goes as follows: deduce a hypothesis; express the hypothesis in operational terms, put forward a relationship between two specific variables, test the hypothesis, examine the specific consequence of the test, and modify the theory in the light of findings if necessary. This approach stresses moving from theory to data, the collection of quantitative data, the application of controls to ensure validity of data, and the operationalisation of concepts to ensure clarity of definition (ibid).

In our research, we use the deductive approach. In the first place, we conduct a literature review of theories of customer value in order to develop our research hypotheses. Later we express the hypotheses in operational terms and conduct a questionnaire which will be distributed among students (regarded as a sample) at Kristianstad University. The primary data collected from the questionnaire are analyzed to test the hypotheses in the end.

As to inductive approach, researchers collect data and develop a theory as a result of the analysis of the data. It emphasizes moving from data to theory, the collection of qualitative data, and gaining an understanding of the meanings humans attach to events (ibid). But owing to our limited time, it is hard for us to collect enough data to analyze in order to develop a theory somehow, so we do not use this approach.

Accordingly, we use deductive approach in our research.
2.3 Research strategy

The research strategy refers to a general plan of how we handle the research questions. Figure 2.3 demonstrates our research strategies in general. Two strategies are included: literature review and survey.

A literature review is considered as one principal way of exploratory studies, which is helpful for both generating and refining the research ideas and awareness of the current state of knowledge in the subject (ibid). Because there are few studies directly relevant to the relationship between web site and customer value, we have to conduct a literature review on both two sides respectively: web site and customer value. The former one is expected to contribute to decide on the role of web site from a marketing perspective. The latter one is expected to reach a solution on full understanding of customer value. Based of these, we intend to identify the key factors of web site which, we think, may influence customer value, afterwards to develop a web site model with key factors which influence customer value. Meanwhile, we develop our hypothesis.

A survey is a strategy associated with the deductive approach, and a questionnaire is the most common data collection method of this strategy. Although having weakness such as not being a wide-arranging data collected as others, time consuming in designing and
piloting the questionnaire, it enables the collection of a large amount of data from a big population in a highly economical way. Besides, the questionnaire is perceived as authoritative by people commonly, and the data collected are standardized which is easy to compare and analyze (ibid). So we use the survey strategy and questionnaire method to collect our primary data. As mentioned above, the literature review leads to the development of our research model and hypothesis. The survey’s task is to verify the hypothesis. Our research model is made up of key factors of web site which may or may not influence the customer value. Each factor is expressed in operational terms in the questionnaire. Each factor is hypothesized to have influence on customer value. As to the other side of the customer value, it is hard to measure in the questionnaires. We employ two ways to reach it. One is the importance statement, and the other is the quality attribute evaluation according to the Kano model. The detail of the questionnaire and the analysis method are presented in the chapter three.

Besides the two strategies interpreted above, we thought to use the strategy of case study for our research at the beginning. The case study involves an empirical investigation of a specific contemporary situation within its real life context using multiple sources of evidence (ibid). It is useful in gaining a rich understanding of the research context and has “considerable ability to generate answers to the question ‘why?’ as well as the ‘what?’ and ‘how?’ questions…” (ibid); in addition, it is a good way of exploring existing theory. Owing to the fact that our research is about web site, it is easy to put the case study on web site and there are two methods to do so. One is to consider one web site or more as a target and regard the evaluation of each factor and the evaluation of whole web site as two variables. The hypothesis can be tested in the relationships between the two variables. This method put the questionnaires in a real context. The other, is just to conduct the questionnaire on web site, which contributes to the problem of population and sample. However, both methods need the access to a web site and the design of the survey software. In addition, it costs a lot of time and responsiveness is unpredictable. So, given these limits, we have to give up this strategy.

2.4 Summary

Owing to our research problem and our limited time and knowledge, we choose realism
as our research philosophy and employ a deductive approach. As to the research strategies, we employ the literature review to collect secondary data and the survey for the collection of primary data with the use of a questionnaire.
3 Theoretical frameworks

This chapter presents the theoretical frameworks of our research. It deploys from two directions. One is to examine the role of website from a marketing perspective; the other contributes to the research of customer value subordinated by three legs: origin, composition and process, namely, coming from comparisons, involving psychic value and utility value, covering the whole customers’ activity. After that, we develop our research model and hypothesis.

3.1 The role of website from a marketing perspective

3.1.1 Marketing

Owing to its aim of creating and keeping customers, the business has only two central functions- marketing and innovation. The basic function of marketing is to attract and retain customers at a profit (Drucker, 1999). In other words, marketing focuses on establishing, developing and commercializing long-term customer relationships so that the objectives of the parties involved are met (Gronroos, 1998). This idea is widely accepted until late 20th century. Before that the emphasis of marketing lies in productivity in 19th century and selling in early 20th century rather than customers (Hutchings, 1995). Nowadays, in the era of Internet, to make customer as the centre of the business and marketing is more important than ever before because “in the physical world, if I make a customer unhappy, they will tell five friends, on the Internet they will tell 5000 (Poleretzky, 1999, 76).

Jobber et al. describes the modern marketing concept as “the achievement of corporate goals through meeting and exceeding customer needs better than the competition (2006, 4)”. And it has three key components, just like Figure 3.1 shows. The first is customer orientation – company’s activities focus on providing customer satisfaction. The second is integrated effort - the responsibility for creating customer satisfaction is accepted by all staff. The third is goal achievement –that company’s goals can be achieved via customer satisfaction is firmly believed. In brief, all things of business orients to the customers, putting customer at the centre of the business and meeting customer’s needs.
3.1.2 Marketing mix

In order to reach the marketing objective, attracting and retaining customers, companies should create and deliver superior value to their target customers than their competitors (Jobber et al., 2006). And it is normally the responsibility of marketing mix to create and deliver these values.

Marketing mix is commonly considered as four Ps, which can be linked by four As like Figure 3.2 shows (Hutchings, 1995).
Figure 3.2: The Marketing Mix

Four Ps refer to product, price, promotion and place.

Product is regarded as what is offered to the market and provides “acceptability”, which includes product itself (features, specifications, appearance, unique aspects, quality, and life cycle), brand name, guarantees, packaging and the services with the product offering.

Price is considered as a key element of the marketing mix because all other elements represent costs except it. It acts as an exchange value for the product, providing “affordability”, which is involved in discount, allowances, credit agreement etc.

Promotion has its own mix which involves advertising, personal selling, sales promotions, public relations, direct marketing and Internet marketing, regarding as “awareness”, which implies it aims to let people know via communication.

Place aspect comprises the distribution channels, the location of outlets, methods of transportation, and the inventory levels to be held, regarding as “availability”.

With the emergence of Internet, the marketing mix appears many new features.

3.1.3 Internet & E-commerce

The Internet is a global web of over 50,000 computer networks containing millions of web pages, which users can access once they connect to a server (Jobber et al., 2006). So far, the internet users have been beyond one billion, taking up 16% of the population of the whole world.3

That the Internet is used to be business transaction, together with electronic data interchange (EDI), e-mail, electronic payment systems, advanced telephone systems, hand-held digital devices, interactive television, self-service kiosks and smart cards, is called Electronic commerce or e-commerce (Jobber, 2006). E-commerce has four forms

according to the different origin and different destination of the business in terms of business (company) or pure consumer (customers), they are respectively business to business (B2B), business to consumer (B2C), consumer to business (C2B) and consumer to consumer (C2C), just like Figure 3.3 shows. We concentrate on the only form of business to consumer (B2C).

<table>
<thead>
<tr>
<th></th>
<th>From business</th>
<th>From consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td>To business</td>
<td>B2B</td>
<td>C2B</td>
</tr>
<tr>
<td>To consumer</td>
<td>B2C</td>
<td>C2C</td>
</tr>
</tbody>
</table>

Figure 3.3: Four forms of e-commerce (Jobber et al., 2006)

3.1.4 Internet marketing

Internet marketing refers to the accomplishment of marketing objectives through the utilization of the Internet and web-based technologies (Jobber et al., 2006). There have been three stages in Internet marketing development. Initially, Internet technologies were found to be used to provide a range of information about a company on a website. The next stage was to incorporate various forms of interactive marketing into the website - for example, surveys and e-mail questionnaires to encourage direct, two-way communication with customers. The final stage involved permitting customers to use an online marketing platform to place orders and make payments via the Internet (Jobber et al., 2006).

As the organizational knowledge platform, Internet becomes much closely to the other knowledge sources, such as the customers in the marketing system; on base of that, it enables the interchange of data as trading activities in the real time and the emergence of dynamic and rapid response between the suppliers and customers (Jobber et al., 2006). All this creates a new opportunity in the marketing system. Internet also has other benefits in terms of marketing. The first one is convenience, the web site is available any time, is more convenience than the traditional distribution channels involving driving and queuing; the second one is global, the web site is available for the
customer from all over the world, if only the Internet is available, vice verse, all
information on the web site all over the world is available for the customer at one spot
of the world; the third one is comparative, the customer can compare the product and
price on the web site in the real time, all the price becomes transparent to the customer
on the web site; the last not least, the Internet is big information resource, which enable
the customer the evaluate alternative brands or service.

3.1.5 Internet marketing mix

Benefit from these advantages of Internet, the marketing mix is enhanced by the Internet
and emerges new features (Jobber et al., 2006), just like figure 3.4 shows:

![Internet Marketing Mix Diagram]

As to the acceptance of the customer, features of individual, customized and digital
show up. Individual refers to that personal specifications can be met on the web site as
the individual product; customized refers to that such as a customized list of favorites
provided by the web site enables the customer speedier shopping online; digital refers to
that the digital product can be ordered and delivered on the web site, as well as after-sale service.

Depending on the web site, the price of the product provided by the company is transparent and dynamic, flexible according to the company’s price strategy and some variables such as time or collective purchase. That makes the price more affordable than the traditional stores.

The task of the promotion is the awareness of the product, service or the company supplying these to the customer. Aiming at this, the web site enables the company build a two-ways dialogue with the customers. Underlying the web site the company can send permission-based information to the customer using e-mail or bulletin board. Of course, the accuracy of the information is the base precondition. In addition, the communication on the web site is interactive between the customer and the supplier, and then quick responsiveness should be considered, because the Internet technology has enabled response instantaneously. Moreover, owing to the power of word-of-mouth and specific technology, a community built on your web site and entering the search engine is a good way to improve the awareness of your web site.

Traditional distribution channel is limited by the place, so the availability should be considered. While, using web site, a new channel is created. It is virtual, available anytime, anywhere, only if the web site is available, namely, globally. Say, web site expands the place infinitely.

3.1.6 Web site and Internet

“Web sites are the cornerstone of Internet activity for organizations, regardless of whether they are operating in the B2B or B2C sectors and whether the purpose is merely to offer information or provide fully developed embedded ecommerce (transactional) facilities” (Fill, 2002, 598). Fill (2002) also divides web sites into two types: one is product-orientated and the other is corporate orientated. Product-orientated web sites mainly concentrate on providing product-based information, on-line transactions and ongoing technical support while corporate-orientated web site attribute
to providing information about the company such as its performance, size, prospects, financial data. We intend to focus on the product-orientated web site.

In sum, web site (or say Internet) enables a great marketing opportunity, enhancing the marketing mix and endowing the marketing mix with new features. Actually, web site can also be considered as a medium that is potentially far more comprehensive and effective than a television or newspaper communication (Budman, 1998). This is the role of web site in the marketing context.

3.2 Understanding customer value

Many researchers have found that creating superior customer value is a key factor for ensuring the success of a business (Higgins, 1998; Kordupleski & Laitamaki, 1997; Woodruff, 1997; Porter, 1996; Wyner, 1996; Milgrom & Roberts, 1995). Superior customer value encompassed products/services will contribute to customer loyalty (Reichheld et al., 2000; Heskett et al., 1997; Reichheld, 1994). Actually, customer loyalty and business profit are closely connected to value created by the company and delivered to customer, so to speak, only if the company offer customers superior value compared to its competitors, customers will be loyalty to the company (Khalifa, 2004).

So to get an all-sided understanding of customer value is very important to a business’s success, because customers intend to choose products with superior value to others (Woodruff, 1997).

Generally, customer value is considered to be decided by the perception of customers not the intention of the suppliers (Zeithaml, 1998; Anderson & Narus, 1998; Belasco & Stayer, 1993) or to be defined by the customer in the market not the supplier in the firm (Webster, 1994). Meanwhile, customer value has many different features in eyes of different researchers, owing to its subjectivity and ambiguity of dynamic with time (Naumann, 1995; Jaworski & Kohli, 1993).

In the following sections, we examine the customer value from three perspectives: origin, comprising and process, namely, coming from comparison, involving psychic value and utility value, covering the whole customers’ activities.
3.2.1 The customer value coming from comparison

Customers use the benefit-cost model to evaluate a purchase (Zeithaml, 1988), in another words, it is the major point for the customer to evaluate the perceived value of the product and the cost of obtaining it during the purchase activity (Huber et al., 2001).

In this sense, many researchers consider customer value from a benefit & cost perspective. Day (1990) regards customer value as the difference between the customer perceived benefit and the customer perceived sacrifice. Leszinski & Marn (1997) consider customer value relevant to the pricing as the difference between customer perceptions of benefits received and sacrifices incurred. While, Woodruff & Gardial (1996) define customer value as the evaluation of the value come from the comparison between the positive consequences (benefits) and negative consequences (sacrifice or costs) of a purchase. In sum, customer value is a comparison between benefit and cost, which also can be expressed like the equation below:

Customer value = perceived benefits – perceived sacrifice (Jobber et al., 2006)

Through comparison between the benefit and the cost, the origin source of customer value is identified.

As to the benefit and cost, many researchers have their interpretations.

Some researchers argue customer benefits involve tangible and intangible characteristic of the product or service (Gale, 1994; Monroe, 1990). Treacy & Wiersima (1995) reckon that the benefits can extend to the customer’s performance or experience during purchase activity.

Horovitz(2000) asserts that the benefit can be improved, extended and expanded. Improved benefits concentrate on increasing one or some attributes or qualities of a product or service and making them over the current average degree. Extended benefits focus on creating solution for customers by providing some auxiliary services. Expanded benefits intend to adding intangible services to tangible products and transfer providing a pure solution to providing an experience.
The sacrifice or cost should involve the monetary factors and non-monetary factors such as time and effort required to attain and use the product or service (Gronroos, 1997; Kotler, 1996; Naumann, 1995; Zeithaml, 1988). Both tangible and intangible costs should be considered, for example the time spent on delays or handling errors (Treacy & Wiersima, 1995).

In addition, Zeithaml (1988) classifies the costs customer should endure while obtaining the product as monetary costs, time costs, searching costs, learning costs, emotional costs, cognitive costs, physical effort and the financial, social and psychological risks while facing the uncertainty or potential negative consequences of the purchase. He also concludes four kinds of customer definitions of value: low price; what the customer want from the product or service; the quality acquired for the price paid and the whole benefits gained for the whole costs taken on while Treacy & Wiersima (1995) figure out that the customer value comes from low price, quick response, additional service and high quality.

Coming down towards the web site context, we includes that customer value, as well, comes from customers’ comparison between benefit gained and cost required.

### 3.2.2 The customer value involving psychic value and utility value

Despite benefit or cost, two factors are identified, tangible or monetary factor and intangible or non-monetary factor. This implies that customer value has two directions. One orients to the product which we can call it tangible, monetary, means or utility factor, while the other orients to people which we can call it intangible, non-monetary, ends or psychic factor, just like figure 3.5 shows.
Here means refers to the product or service, while ends refers to the goal or consequence that the customer wants to reach. As to the ends, researchers assert that the reason the customer obtain and use the product or service is to achieve his or her desired goal (Wilkie, 1994; Gutman, 1982). The customer can get the desired consequence from the consuming activity directly as well as later or through others’ reaction of his or her consuming behavior indirectly (Huber et al., 2001). During this period, the customer intends to maximize the desired consequence and minimize the undesired consequence (Peter & Olson, 1990).

Woodruff’s customer value hierarchy model explains the idea above in detail. Woodruff (1997) defines the customer value as the perceived preference for and judgment of the product attributes, attributes’ performances, and consequences of using in order to reach the goals or purposes in the use situation. On base of this idea, he build a customer value hierarchy model, just like Figure 3.6 shows:

![Customer Value hierarchy model](image)

This model explains two dimensions: desired value & received value. As to the desired value, moving down the hierarchy illustrates that in order to achieve the goal, the customer will think about the consequence attributing to the goal while the consequence...
will lead the customer to choose the product’ attributes and the attributes’ performances. Moving up the hierarchy illustrates that before purchase the customer will consider the product’ attributes and the attributes’ performances which will result in the desired consequence orienting to the desired goals.

From this point of view, there are three levels in Woodruff’s customer value hierarchy which are connected with each other but not fulfill simultaneously all the time. That leads to three levels of satisfaction, respectively coming from product attribute, product performance consequence and the people’s goal.

Groth(1994) use utilitarian value and psychic value to identify the two directions. He asserts that there is more than pure utilitarian value for the customer to make a purchase. He proposes a notion of exclusive value premium (EVP) and figures out that EVP is more important than pure utilitarian value for a customer because of psychic needs fulfillment. Figure 3.7 is his model of exclusive value premium.

![Figure 3.7: Exclusive Value Premium Model (Groth, 1994, 10)](image)

Furthermore, he considers two psychic factors contribute to EVP: internal factors and external factors. Internal factors refer to those psychic factors independent from others’ opinions, influences, suggestions, interaction, interpersonal relations, etc while external factors refer to those relevant to others’.

Kaufman (1998) asserts that the total customer value can include three primary elements: “want” (esteem value), “worth” (exchange value), and “need” (utility value), just like
Figure 3.8 shows. Esteem value is related to the buyer’s desire to own the product; exchange value illustrates why the buyer is interest in the product and when and how to buy it while utility value illuminates the performance and physical feature of the product. He puts forward that the combination of the three primary elements of value will determine the buyer’s decision of purchase.

In fact, “want” orients to people, while “need” orients to product. And “worth” is the basic origin of customer value just like mentioned before.

Holbrook (1999) regards customer value as an “interactive relativistic preference experience”. According to this consideration, customer value is an interaction between the subject (a customer) and the object (a product or service); customer value is “comparative” – getting from comparing with others and encompassing preferences to different objects, “personal” – different evaluation from different people, and “situational” – different evaluation in different situations; customer value is influenced by people’s preference while evaluating; customer value is obtained from consumption experience rather than the product or service itself. Furthermore, he identifies eight types of customer value depending on three key dimensions: extrinsic value- intrinsic value, self-oriented value – other-oriented value and active value – reactive value, just like Figure 3.9 shows.

Extrinsic value is oriented towards the function utility of a product.

---

4 In his original literature, he uses consumer value instead of customer value. Actually, we think they are the same in our dissertation (see the Introduction chapter).
Intrinsic value is oriented towards satisfying people directly, on the psychic ground.

Self-oriented value focuses on the own evaluation of the customer.

Other-oriented value focuses on other reflection to the customer’s consumption.

Active value is done by the customer while reactive value is done by the product.

<table>
<thead>
<tr>
<th></th>
<th>Extrinsic</th>
<th>Intrinsic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Oriented</strong></td>
<td>Active: Efficiency(O/I, Convenience)</td>
<td>Play(Fun)</td>
</tr>
<tr>
<td></td>
<td>Reactive: Excellence(Quality)</td>
<td>Aesthetics(Beauty)</td>
</tr>
<tr>
<td><strong>Other-Oriented</strong></td>
<td>Active: Status(Success, Impression Management)</td>
<td>Ethics(Justice,Virtue,Morality)</td>
</tr>
<tr>
<td></td>
<td>Reactive: Esteem(Reputation, Materialism, Possessions)</td>
<td>Spirituality(Faith, Ecstasy, Sacredness)</td>
</tr>
</tbody>
</table>

Figure 3.9 Holbrook’s Typology of Value in the Consumption Experience

( Holbrook, 1999, 12 )

Despite what kind of name for the two directions, one thing is confirmed that there is more than pure utilitarian value for the customer to make a purchase (Groth, 1994). That is psychic value. Now we use psychic value and utility value to represent the two directions of customer value.

Actually, many researchers have found psychic value is more important than utility value.

Khalifa (2004) sets up a customer value buildup model to express this idea, the importance of focusing on the fundamental needs of people. In his mode, two pairs of dimensions are identified for the customer value’s buildup, just like Figure 3.10 shows.
One pair is that the consumer is considered as a customer or a people and the relationship between the consumer and the supplier is pure transaction or genuine interaction. The other pair is that the benefit the consumer obtains from the product or service is mainly tangible or intangible and that the product or service mostly meets the utility needs or psychic needs of the consumer.

Meanwhile, he figures that the customer value increase rapidly in following cases:

1. The consumer is treated as a people rather than a customer.
2. The relationship between the consumer and the supplier is considered as genuine interaction rather than pure transaction.
3. The benefit the consumer obtains from the product or service is mainly intangible rather than tangible.
4. The product or service mostly meets psychic needs of the consumer rather than the utility needs.

In terms of the buildup of customer under the above situation, four stages of customer...
value are identified. From low level to high, they are functionality, solution, experience, and meaning. Functionality refers to the consequence which the customer obtains from the product’s attributes or quality. Solution extends the functionality, and intends to provide support service such as installing, using and maintaining the product, focusing on the customer’s activities rather than the product’s utility. Experience refers to adding some intangible elements to the tangible offers from the supplier, such as the emotional factors the customer obtaining from the total activities of purchase (Smith & Wheeler, 2002). Meaning magnifies the emotional factors to a high level, connecting with self-esteem.

As to the psychic value, the Kano’s model of customer perception of value must be mentioned. In this model, three essentials in the customer value are identified: satisfiers (more is better), dissatisfiers (must be) and delighters (exciters) (Joiner, 1994, Thompson, 1998), just like the Figure 3.11 shows below:

![Figure 3.11: Kano’s model of customer perception of value (Joiner, 1994, pp68-9)](image)

Satisfiers refer to those factors satisfying the customer. The quality of product to meet satisfiers is called one-dimension quality (Kano, 2001) because the relation between the
performance of the characteristic and the customer satisfaction is linear, one-dimensional. If the performance is not good, satisfiers will decrease while increase when the performance is good to meet the customers’ needs.

Dissatisfiers refer to those factors which will dissatisfy the customer. Dissatisfiers are corresponding to the product’s feature taken for granted by the customers which is also called must-be quality (Kano, 2001). The presence and increasing performance of must-be quality will not increase the level of customer satisfaction too much, maximally to the neutral while decrease rapidly when absence or the performance is bad. Dissatisfiers result in customer defection and attrition if they are absent (Thompson, 1998).

Exciters refer to those factors which will make the customer feel excited. Exciters are corresponding to the feature unexpected by the customers which is also called attractive quality (Kano, 2001). If the attractive quality is absent, it will not lead exciters to drop down too much, maximally to the neutral, while its presence will increase exciters quickly.

The total customer value results from the combination of the three essentials’ evaluation. So to speak, every essential will influence customer value, respectively and to different extent.

In fact, this model emphasizes the relationship between the psychic value and the product’s attributes. From this point of view, this model is good at evaluating the degree how the quality attributes (quality dimensions) influencing the customer value. In our empirical investigation, we tend to adapt this model which is presented in detail in chapter four.

Furthermore, on the base of Kano model, Schneider & Bowen (1999) find two additional factors should be considered - delight & outrage. They assume that customers would more like to be treated as people than as customers and people prefer to meet their fundamental needs as people rather than their specific needs as customers. On the base of this assumption, they bring about the two key elements in customer’s behavior –
delight & outrage, which underlie three fundamental needs of people – security, justice and self-esteem. They argue that failing to meet these fundamental needs of people result in outrage, which will magnify customers’ dissatisfaction and diminish customers’ satisfaction from other attributes of product or service, while accomplishing these fundamental needs result in delight, which will magnify customers’ satisfaction and to some extent diminish some defections.

They figure out the satisfaction and dissatisfaction are connected with the attributes of product or service in terms of customers’ treatment, while delight and outrage come from the interaction process, meeting their needs as people. As to three fundamental needs of people, they think that security and justice are more likely to lead to satisfaction rather than delight, while meeting customers’ esteem needs comes to delight.

As to web site, we have two considerations towards the two directions or elements of customer value. If we consider web site as a medium of marketing just as we mentioned above, the utility value may be dominant, which emphasize its role of searching, enquire and transaction. While, if we regard it as a product, then attractiveness, customization, responsiveness, community and assurance may play the main role, it is to say, psychic value are identified. Owing to our intention of exploring the key factors of web site influencing customer value, we will do the research from both sides.

3.2.3 The customer value covering the whole customers’ activities

Gronroos(2000, 140) proposes three equations for the customer perceived value(CPV):

\[
CPV1 = \frac{\text{Episode benefits} + \text{Relationship benefits}}{\text{Episode costs} + \text{Relationship costs}}
\]

\[
CPV2 = \frac{\text{Core solution} + \text{Additional service}}{\text{Price} + \text{Relationship costs}}
\]

\[
CPV3 = \text{Core value +/- Added value}
\]

He considers the customer value from all aspects related to the products purchased by the customer. Episode refers to the single encounter between a supplier and a customer. Relationship refers to episode plus supplier-customer continuous long-term relationship
after the episode. The core value refers to benefits from the core solution of the products relevant to the price. The added value refers to benefits from additional service in the relationship relevant to the relationship costs. He argues that the added value can be negative, such as complex systems, unfriendly or unskilled employees, late deliveries, incorrect invoices, badly handled complaints, delayed maintenance of service, long queues for service and complicated documents. So to speak, customer value covers all aspects related to the whole customer activity, from pre-purchase, purchase, use, after-sale service etc.

Huber et al. (2001) also argue that the evaluation of customer value will cover the whole activity of customer from the expectation before buying and buying activity to using and maintaining after purchase.

As to our research, the factors influencing customer value also appear in the whole process of people's visiting the web site.

3.3 Our research model and hypothesis

From analysis above, we conclude: 1. the web site acts as a medium of marketing and in some way enhances the marketing mix; 2. customer value is a comparison of benefit and cost, having both psychic value and utility value and covering the whole customer activity; 3. as to our research, web site also can be considered as a pure product which may influence the psychic value of customer; 4. it is a good way to find the key factors of web site from the process of customers’ visiting web site.

Fill (2002, 602) has described a framework depicting web site visitor behavior, just like Figure 3.12 shows:
But because our intention is to explore web site’s key factors influencing customer value, we’d like to adapt Fill’s figure. We delete some useless elements in terms of our purpose and at same time add “Enquiry & response” element, which has impact on the customer value (Zeithaml et al., 2000).

We also intend to find some web site’s key factors corresponding to the period when customers visit web site. On the base of the web site’s role in marketing context and Internet marketing mix, we identify eight key factors of web site, which may or may not influence customer value. They are Attractiveness, Ease of use, Accuracy, Customization, Responsiveness, Community, Comparison and Assurance, just like Figure 3.13 shows.
Attractiveness refers to the factor of web site that the design of web site is appealing. In fact, the design of web site is directly related to the user interface, which is decisive to pleasing the customers’ eyes (Wolfinbarger & Gilly, 2003), and it is also considered as a key aspect of perceived quality of web site (Gronroos et al., 2000).

Ease of use

Ease of use refers to the factor of web site that the web site is easy to navigate. Ease of use is a crucial factor of the customer usage of the web site (Morris & Turner, 2001), and is particularly important for the new customers (Gefen & Straub, 2000). Ease of use is a determinant quality for the web site (Dabholkar, 1996) and is decisive for the customer satisfaction (Xue & Harker, 2002). It involves functionality, accessibility of information, ease of ordering and navigation (Reibstein, 2002). About 30% of the
consumers leave a web site without buying anything only because they can not find the way through the site (Schaffer, 2000). It is the key factor for a web site’s success to enable consumers to search for information easily and make the information readily accessible and visible (Sinioukov, 1999).

**Accuracy**

Accuracy refers to the factor of web site that information of the web site is up-to-date and correct. The reliability of the information provided on web site can be called as accuracy. Accurate web site provides the customer useful and reliable information, up to date and correct. (Zeithaml et al., 2000). Web site reliability is often referred to both as a functional quality dimension as well as the information content (Van Riel et al., 2001).

**Customization**

Customization refers to the factor of web site that the web site provides information and products according to your preferences. Customization increases the possibility for the customer to find what they want to buy (Srinivasan, 2002). A survey conducted by NetSmart Research showed that 83% of web site surfers are confused when navigating (Lidsky, 1999). While customization can reduce this kind of confusion and create perception of increased choice by enabling a quick focus on what the customer want as well (Shostak, 1987). Moreover, customization can signal high quality and result in better match between customer and product (Ostrom & Iacabucci, 1995). The customization also enables the customer to complete the transaction more efficiently, in fact, customization can really minimize the time customers spend browsing through an whole product assortment to find what they want precisely (Srinivasan, 2002). “The web has clearly entered the phase where its value proposition is as contingent upon its abilities to permit customization as it is upon the variety of content it offers (Schrage, 1999, 20).” The supplier should strive to customize the service to the customer’s individual needs based on their past purchases or other information provided by the customer (Srinivasan et al., 2002).

**Responsiveness**
Responsiveness refers to the factor of website that the company answers your request quickly. In general, responsiveness has a positive impact on the customer value, but the e-mail from the supplier bombards the customer too much, the influence will be negative (Zeithaml et al., 2000). Anyway, it is crucial that customers receive adequate and timely support in case of questions.

**Community**

Community refers to the factor of website that the website has a forum or chat room for the customers to communicate with each other. Community can highly affect the facilitation of word-of-mouth (Hagel & Armstrong, 1997). Many customers usually turn to other consumers for advice and information regarding products and services that they want to buy (Punj & Staelin, 1983). Communities also make the customers to identify themselves in a large group. “Identification is the perception of belonging to a group with the result that a person identifies with that group (Bhattacharya, Rao, & Glynn, 1995, p. 47). Social interactions facilitated within virtual communities are valuable to the customers (Srinivasan, 2002).

**Comparison**

Comparison refers to the factor of website that the website enables you compare the product and price easily. Its meaning comes from the origin of customer value itself and its convenience of evaluation of the product’s value.

**Assurance**

Assurance refers to the factor of website that the website protects your private information and its payment system is secure.

Assurance involves security and privacy, which are of serious concern to the customers (Rust & Kannan, 2002). Security refers to the risk of third parties getting important information about the customer such as the access to the credit card or bank account details, while privacy concerns the potential misuse of personal information by the marketers (Milne & Rohm, 2000). Assurance has been found to be a relevant factor online for the customer (Zeithaml et al., 2000).
With these eight key factors of web site, our research model is developed, just like Figure 3.14 shows:

And we hypothesize that each of the eight factors of web site influence customer value.
4 Empirical Frameworks

This chapter presents the methods used to accomplish the empirical investigation. Our aim is investigate whether the eight factors of web site influence the customer value and the degree respectively. We use a survey with a questionnaire to collect the primary data. As to the design of the questionnaire, we use the Kano model which is explained in detail at the beginning of this section. Afterwards, the questionnaire will be discussed, and then the method’s validity and reliability are discussed in the end.

4.1 Research strategy

Our empirical research aims to verify our hypothesis that the eight factors of web site influence the customer value. As we mentioned in the chapter two, we use survey as our empirical research strategy. Survey is a strategy associated with the deductive approach and questionnaire is the most common data collection method of this strategy. Although it has weakness such as not so wide-arranging data collected as others, time consuming in designing and piloting the questionnaire, it enables the collection of a large amount of data from a big population in a highly economical way, the questionnaire is perceived as authoritative by people commonly, and the data collected are standardized which is easy to compare and analyze (Saunder, M. et al., 2003).

As discussing in the former chapter, the literature review has led to the development of our research model and hypothesis. The whole web site is regarded as involving eight factors, which, we hypothesize, influence the customer value.

The survey strategy and questionnaire method enables use to collect primary data. As to the left side of the hypothesis, each factor of web site will be expressed in operational terms in the questionnaire. Each factor is hypothesized to have influence on the customer value. As to the other side of our hypothesis - customer value, it is hard to measure from the participants. We plan to employ two ways to reach this. One is the importance statement; the other is the quality attribute evaluation according to the Kano model.

4.2 Kano model

Kano’s Model, which is also called as the theory of attractive quality, is a theory to evaluate the quality attribute of a product, based on the philosophers’ idea such as Aristotle’s and John Locke’s (Kano, 2001), with two dimensions consideration of things
Over the past two decades, this model has obtained increasing exposure and acceptance and it has been widely applied in strategic thinking, business planning and product development to demonstrate lessons learned in innovation, competitiveness and product compliance (Watson, 2003).

With this model, it is easy to understand different aspects of how customers evaluate a product.

This model originates just because of the lack of explanatory of a one-dimensional recognition of quality. For example, people are satisfied if web site guarantees the security of customers’ private information and the payment system; meanwhile, people are dissatisfied if web site can not guarantee the security of customers’ private information and the payment system. However, for the attractiveness attribute, people are not satisfied if the design of web site is appealing; but people are dissatisfied if the design of web site is not appealing. The one-dimensional view of quality can explain the role of security but not attractiveness. In order to get full understanding of quality attribute, Kano (2001) present a model evaluating patterns of quality, according to the relationship between two aspects - the objectively physical state and the subjectively user’s perception.

The physical state of a quality element is taken along the horizontal axis while the user’s perception the vertical axis; the physical state of a product is expressed with two levels: insufficient and sufficient; the user’s perception is expressed with three levels: dissatisfied, neutral (not satisfied or dissatisfied) and satisfied (ibid). Figure 4.1 shows the traditional one-dimensional recognition of quality while Figure 4.2 show the two dimensional recognition.
For each quality factor, assume the two states for physical state such as insufficient and sufficient as mentioned above in the first place; then ask the user how the user perceives the quality factor for each state: satisfied, neutral or dissatisfied. And then nine possible evaluation cases are acquired by combining the three evaluation levels for each physical state and Kano categorizes them into six patterns: Attractive quality, One-dimensional quality, Must-be quality, Indifferent quality and Reverse quality, Skeptical. Each of the six patterns is defined and named based on the feature of each pattern as shown in Figure 4.3 and illustrated in Figure 4.4 (ibid).
<table>
<thead>
<tr>
<th>Physical State</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td><strong>perception</strong></td>
<td><strong>dissatisfied</strong></td>
<td><strong>neutral</strong></td>
</tr>
<tr>
<td>Insufficient</td>
<td><strong>dissatisfied</strong></td>
<td>Skeptical</td>
<td>Must-be</td>
</tr>
<tr>
<td></td>
<td><strong>neutral</strong></td>
<td>Reverse</td>
<td>Indifferent</td>
</tr>
<tr>
<td></td>
<td><strong>satisfied</strong></td>
<td>Reverse</td>
<td>Reverse</td>
</tr>
</tbody>
</table>

Figure 4.3: Classification of Quality Elements into Six Patterns

Based on Two Dimensional Recognition (ibid, 23)

![User's Perception Diagram]

Figure 4.4: Evaluation Patterns of Quality

Based on Two Dimensional Recognition of Quality (ibid, 23)

Attractive quality attributes can be described as surprise and delight attributes, and provide satisfaction when the physical state is sufficient but do not lead to dissatisfaction when insufficient (Kano, 2001). This kind of quality attributes is normally considered very attractive (ibid), which will not be expected by customers and often be unspoken (Lofgren, 2004), e.g. the price comparison function of different brand products in web site. Another example is just like that you found a sweet or a bunch of flower on the bed when you entered the room of the hotel you booked in advance. True
that it was not included in the service you expected as to the sweet and flower. Therefore, you will not be dissatisfied if without them, but with them, you will be very delighted. From this point of view, the sweet and flower can be considered as the attractive quality of the hotel whole offer. In former chapter, we address this attribute as Exciter in terms of component of customer value.

One-dimensional quality attributes result in satisfaction when sufficient and result in dissatisfaction when insufficient (Kano, 2001). This kind of quality attribute is something like the traditional thinking for quality element as one-dimensional recognition. For example, customers will be satisfied with the user-friendly interface of the web site while dissatisfied with the user-unfriendly ones. From this point of view, user-friendly interface is the one-dimensional quality attributes of the web site. In former chapter, we address this attribute as Satisfier in terms of component of customer value.

Must-be quality attributes are taken for granted when sufficient but result in dissatisfaction when insufficient (ibid). This kind of quality implies that the sufficient physical state is a must (ibid). In our example of web site, the security of payment is this kind of quality attribute. Customers assume that the companies doing business online should understand this. Therefore, if the payment goes well, this is the basic requirement, which will not influence customers’ satisfaction very much. While if the payment online goes wrong, the customers’ dissatisfaction will increase highly. In former chapter, we address this attribute as Dissatisfier in terms of component of customer value.

The factors of web site belonging to the former three attributes can be considered to have positive influence to the customer value.

There are two more quality dimensions: indifferent quality attributes and reverse quality attributes (ibid). The first one refers to aspects that are neither good nor bad and consequently they do not result in either customer satisfaction or customer dissatisfaction. So to speak, this case is recognized as a neutral feeling either for the sufficient or insufficient physical state, which implies that people are indifferent about the physical state (ibid). In our research, this kind of attribute can be considered no influence to the customer value.

The latter refers to that the sufficient physical state results in dissatisfaction and
conversely insufficiency resulting in satisfaction (Lofgren, 2004). And the reverse quality attributes are like the advertisement on the web site, which will bother customers much if the too much advertisements appear in front of the customers. In our research, this kind of attribute can be considered to have negative influence to the customer value.

As to the skeptical quality, there are two cases Figure 4.3, where the occurrence of such combinations is very skeptical or questionable (Kano, 2001).

Kano model demonstrates that the categorization of quality attributes is not absolutely invariable but changes with time, from indifferent quality, to attractive quality, to one-dimensional quality, at last to must-be quality (Kano, 2001). Kano (2001) provides empirical evidence for this change, using the example of the remote control of a color television set. In 1983, the majority of the people investigated evaluated the function of remote control as attractive quality attribute, while one-dimensional quality attribute in 1989 and must-be quality attribute in 1998. Figure 4.5 describes this change.

![Figure 4.5: Life Cycle of Remote Control for A TV Set; 1983, 1989 and 1998 (Kano, 2001)](image)

This is to say that the influence of the eight factors of web site towards customer value is also not absolutely invariable but changes with time.
4.3 The sample

Our research focuses on customers and their evaluation. Our survey only chooses one small group of the total population of customers, so to speak, students in Kristianstad University. We have two considerations about choosing such a narrow sample. One lies in the limited time and finance resources. We have mentioned in chapter two that the best way to conduct this survey is to access and position a web site and investigate the Internet-surfer’s opinion about the “living” web site normally in terms of two variables. But we failed to have an access to a web site; besides, our limited time resources do not permit us to do so because investigating on web site is very time-consuming. The other reason is that students are somehow familiar with the Internet and actually a primary group of consuming on web site. Silverman (2004) proposes that over 35 percent of people aged between 25 and 44 reported having shopped online in the past month in the UK while over 30 percent of 16-24 year olds did so.

The questionnaire was handed out to 100 students in Kristianstad University. While choosing the participants, a convenience sampling method was used. Convenience sampling can be regarded as a method that “involves selecting haphazardly those cases that are easiest to obtain for your sample (Saunders et al., 2000, 177)”. The selection process is continued until the required sample size has been reached. We think this convenience sampling method is sufficient for our intention to evaluate the influence of the eight factors of web site to the customers.

4.4 Questionnaire

The questionnaire was divided into three parts: background questions (age, sex etc), a section where the importance of different factors is rated, and Kano pair questions.

At the beginning of our questionnaire, the purpose of our research is presented.

Then four background questions are followed. The first is about the age. Owing to the participants of students in Kristianstad University in Sweden, we classified age into four categories: Less than 19 years old; 19-22; 23-26; More than 26 years old. The second question is about the sex: male or female. The third is about the experience purchasing on web site. The last one is about the frequency of purchasing on web site within the past 12 months. The latter two questions aim to understand the degree of participants’ experience purchasing on web site.
Afterwards presents a section where the importance of different factors is rated. The question is formulated as “How do you evaluate the importance of web site’s function, supposing you intend to purchase on web site?” We use five point scale to evaluate the degree of importance, from “unimportant” to “very important”.

At last, Kano pair questions are presented. Each of those questions has two parts: how do you feel if web site has this function (factor) and how do you feel if web site has this function (factor). As to each question, Kano (2001) bring about three alternative answers for customers to choose: dissatisfied, neutral and satisfied. Figure 4.6 shows the sample of Kano pair questions.

1:Dissatisfied; 2:Neutral; 3:Satisfied

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<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>The design of web site is <strong>appealing</strong>, how do you feel?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The design of web site is <strong>not appealing</strong>, how do you feel?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 4.6 Kano pair questions

### 4.5 Reliability & validity

While conducting empirical investigation through such as survey with questionnaire, a question always comes with it: “Is it credible of the research findings?” In order to solve this question, two concepts have to be concerned, namely reliability and validity (Saunder et al., 2003).

#### 4.5.1 Reliability

Reliability refers to the consistency of a set of measurements or measuring instrument. It can be interpreted by the following question: If other researchers employ the same research strategy or repeat the same method under other circumstances, can they draw the same result? (ibid)

Mitchell (1996) proposes three ways to access reliability: test re-test, internal consistency and alternative form. Test re-test method requires that the participants answer the questionnaire twice under rather the same circumstance. The answers can later be correlated to see whether the participants have the same reply. For our research, this method seems hard to performance. The reason lies in that it is hard for us to

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contact the participants twice and persuade them to fill in the same questionnaire twice. Accordingly, we put this method out of our consideration. Internal consistency method requires all questions to be correlated with other questions in the questionnaire. This is to say that the consistency of the participants’ answer can be measured across all the questions correlated. But this method is rather complicated to design. We exclude this method also. The third method is using alternative form. This method evaluates the reliability through comparing responses with questions of an alternative form. In our research, we employ two ways to measure the influence of each factor towards customer value. These two ways can be regarded as two different approaches as well as alternative forms to reach the same destination. Using this method, we can, to some extent, reduce the risk of observers’ error or bias.

The questionnaire was distributed in the same way to all participants and they answered on the same questions in exactly the same situation. This way can somehow avoid the risk of participants’ error or bias.

4.5.2 Validity

Validity refers to gaining results that accurately reflect the concept being measured. This is to say validity concerns whether the findings are really about what they appear to be about (Saunber et al., 2003). Normally, a valid measure must be reliable, but a reliable measure need not be valid (ibid).

There are many ways to examine validity, among which are face validity and content validity.

Face validity is a property of a test that is going to be used to measure something and the test is said to have face validity if it "looks like" it is going to measure what it is supposed to measure. While, content validity refers to the extent to which a measure represents all facets of a given problem.

In our research, we identify eight key factors of web site. Each one has its simple and clear definition. And our questionnaire is also using this definition. In this sense, we have no problem about the content validity. As to the face validity, we have made a pilot test where we asked the participants to tell us how they interpreted the questions. With

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these pilot tests, we modified the questionnaire for three times until we got the satisfied interpretation from the pilot participants.

Meanwhile, our research only was conducted on a small group of the whole population. So it seems hard to generalize our research fruit to the whole population. But this research gives us a specific way to see the key factors of web site which influence customer value.

4.6 Summary

Our research strategy is survey with questionnaire. In designing the questionnaire, the Kano model is used. Say, this model is employed to be one of the two ways to evaluate the influence towards customer value. As to the sample, we choose 100 students of Kristianstad University to be our participants to be investigated. During this, the convenience sampling method is used. In order to make our empirical research more reliable and valid, we employed two ways to investigate the influence enabling to compare the two results; at the same time, we conducted the pilot tests of our questionnaire, from which we modified the questionnaire until it reach our requirement.
This chapter presents the result of our questionnaire in the first place. With the result, the analysis follows. Our analysis concentrates on the intention of empirical investigation – the influence of website eight factors to customer value. We intend to explain the result and analyze with the consequence of our questionnaire: background of sample; the importance evaluation and evaluation using Kano model. In the end of this chapter, we introduce Importance index and Indifference index to examine the validity and reliability of our empirical investigation.

5.1 Background

This part involves the first four questions, concerning the background of our participants.

In the first question, the participants were asked to state their age and Table 5.1 shows the result.

Table 5.1: Result of question 1-Age

<table>
<thead>
<tr>
<th>1-Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 19 years old</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19-22</td>
<td>55</td>
<td>55%</td>
</tr>
<tr>
<td>23-26</td>
<td>25</td>
<td>25%</td>
</tr>
<tr>
<td>More than 26 years old</td>
<td>20</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table above presents how the age structure of the participants was distributed. The impediment that can be noticed when observing the table is that our research fails to range people more than 26 years old into wider scale. But, in our mind, this age structure design is much suitable for our participants – students in Kristianstad University.

In the second question, the participants were asked to state their sex and Table 5.2 shows the result.
Table 5.2: Result of question 2-Sex

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>64</td>
<td>64%</td>
</tr>
<tr>
<td>Male</td>
<td>36</td>
<td>36%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table above presents the sex distribution of our participants. Examining the result of the sex distribution, we can conclude that our survey basically meet the requirement of rather even distribution of participants of different gender.

Question number three was designed to ask the participants to answer whether they have experience purchasing on web site. Table 5.3 shows the result.

Table 5.3: Result of question 3

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>85</td>
<td>85%</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

We can see from the table that the majority of our participants have experience purchasing on web site. This proportion might not correspond with the reality. A survey directed to the whole population may not show such higher result. However, we are satisfied this result because our intention aims to investigate those having experience purchasing on web site as possible. They are the real customer rather than the potential.

Question number four was designed to ask the participants to answer how often they have purchased products or service on web site during the past 12 months. This question is supplementary to question number three. Table 5.4 shows the result.
Although people having experience purchasing on web site occupy the majority, those who often purchase on web site only amounts to 19% of the whole participants as the table above shows. This may implies that purchasing on web site is not very popular even among students.

In sum, the first four questions gave us a general picture of our sample investigated. They are young students, with rather even gender distribution; most of them have experience purchasing on web site but not often. Actually, this sample just meets of our requirement of investigation.

5.2 Importance evaluation

This part concerns the evaluation of importance of the eight web site’s factors. This is one dimension to examine the influence to customer value. The result shows in Table 5.5.

Table 5.5: Result of question 5

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>10</td>
<td>26</td>
<td>45</td>
<td>19</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Ease of use</td>
<td>2</td>
<td>4</td>
<td>31</td>
<td>63</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Accuracy</td>
<td>3</td>
<td>5</td>
<td>18</td>
<td>74</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Customization</td>
<td>1</td>
<td>16</td>
<td>41</td>
<td>42</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>2</td>
<td>12</td>
<td>38</td>
<td>48</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Although people having experience purchasing on web site occupy the majority, those who often purchase on web site only amounts to 19% of the whole participants as the table above shows. This may implies that purchasing on web site is not very popular even among students.

In sum, the first four questions gave us a general picture of our sample investigated. They are young students, with rather even gender distribution; most of them have experience purchasing on web site but not often. Actually, this sample just meets of our requirement of investigation.

5.2 Importance evaluation

This part concerns the evaluation of importance of the eight web site’s factors. This is one dimension to examine the influence to customer value. The result shows in Table 5.5.

Table 5.5: Result of question 5

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>10</td>
<td>26</td>
<td>45</td>
<td>19</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Ease of use</td>
<td>2</td>
<td>4</td>
<td>31</td>
<td>63</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Accuracy</td>
<td>3</td>
<td>5</td>
<td>18</td>
<td>74</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Customization</td>
<td>1</td>
<td>16</td>
<td>41</td>
<td>42</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>2</td>
<td>12</td>
<td>38</td>
<td>48</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>
According to the result as showed above, we calculate the mean importance evaluation of each factor. We show them in Table 5.6 and Figure 5.1.

Table 5.6: Mean evaluation of importance

<table>
<thead>
<tr>
<th>Mean evaluation</th>
<th>Attractiveness</th>
<th>Ease of use</th>
<th>Accuracy</th>
<th>Customization</th>
<th>Responsiveness</th>
<th>Community</th>
<th>Comparison</th>
<th>Assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.73</td>
<td>4.55</td>
<td>4.63</td>
<td>4.24</td>
<td>4.32</td>
<td>2.22</td>
<td>3.69</td>
<td>4.88</td>
</tr>
</tbody>
</table>

In Figure 5.1, we can find that the mean evaluation of Assurance, Ease of use and Accuracy is higher than 4.5; the mean evaluation of Responsiveness and Customization
is between 4 and 4.5; the mean evaluation of Attractiveness and Comparison is lower than 4 but higher than 3.5; the most outstanding factor is Community and it mean evaluation is only 2.22 which lower than the half of the full scale (5).

This result really illustrates that the factors of Assurance, Ease of use, Accuracy, Responsiveness and Customization are very important for the customer to purchase on website while the factors of Attractiveness and Comparison are not very important. However, the factor of Community seems little important or unimportant at all in customer’s mind.

In this dimension to evaluate the influence of website’s eight factors to customer value, we draw conclusion that seven of the eight factors of website have positive influence to customer value while purchasing on website, they are Assurance, Ease of use, Accuracy, Responsiveness, Customization, Attractiveness and Comparison. Only one factor was proved to have little influence to customer value, it is Community.

5.3 Evaluation using Kano model

This part concerns what customer value components each factor belongs to, according to Kano model. We have introduced the relevant theory in chapter three. This is the other dimension to evaluate the influence of eight factors of website to customer value.

In the first place, we transfer the original data to six quality patterns following the method introduced in chapter four (Figure 4.3). The transferred data shows in Table 5.7.

Table 5.7 Evaluation using Kano model

<table>
<thead>
<tr>
<th></th>
<th>S - (1,1) &amp; (3,3)</th>
<th>M - (2,1)</th>
<th>I - (2,2)</th>
<th>O - (3,1)</th>
<th>A - (3,2)</th>
<th>R - others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attractiveness</td>
<td>14</td>
<td>16</td>
<td>53</td>
<td>15</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Ease of use</td>
<td>8</td>
<td>3</td>
<td>82</td>
<td>6</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Accuracy</td>
<td>6</td>
<td>5</td>
<td>79</td>
<td>9</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Customization</td>
<td>10</td>
<td>15</td>
<td>60</td>
<td>14</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Responsiveness</td>
<td>1</td>
<td>9</td>
<td>10</td>
<td>65</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Community</td>
<td>1</td>
<td>1</td>
<td>78</td>
<td>4</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>Comparison</td>
<td>2</td>
<td>5</td>
<td>28</td>
<td>36</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Assurance</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>91</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Examining the table, we find that six factors of web site were regarded as the one-dimensional component of customer value, or say, belonging to one-dimensional quality attribute. They are Assurance, Ease of use, Accuracy, Responsiveness, Customization and Attractiveness. Most of participants consider Community as Indifferent; say, this factor has no effect to customer value. However, the factor of Comparison has rather even distribution between one-dimensional, attractive and indifferent component. 36% of participants regard Comparison as one-dimensional while 28% regard as attractive and another 28% indifferent. In this sense, we can say, the influence of Comparison to customer value is not very obvious.

Berger et al., (1993) introduce a calculation method of an average: Better and Worse. The formulation shows below:

$$\text{Better} = \frac{(A+O)}{(A+O+M+I)}.$$
$$\text{Worse} = \frac{(O+M)}{(A+O+M+I)}.$$ 

In the formulation, M represents the amount of those regarding as Must-be attribute; I represents the amount of those regarding as Indifferent attribute; O represents the amount of those regarding as One-dimensional attribute; A represents the amount of those regarding as Attractive attribute.

In this formulation, the positive better numbers indicate that customer value will be increased by providing a quality attribute while the negative worse numbers indicate that customer value is decreased by not providing a quality attribute. The maximum value of better and worse is one. The closer the value is to one, the higher the influence on customer value (ibid).

Table 5.8 shows the better and worse value for each factor, according to the method introduced before.

Table 5.8: Better and worse diagram of each factor

<table>
<thead>
<tr>
<th></th>
<th>Better</th>
<th>Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>0.69</td>
<td>0.68</td>
</tr>
<tr>
<td>Ease of use</td>
<td>0.89</td>
<td>0.91</td>
</tr>
</tbody>
</table>
In order to have a more clear understanding, an overview of the eight factors in a Better-Worse diagram presents in Figure 5.2. Pairs of better and worse points for each factor have been plotted in a two-dimensional graph (the negative sign in front of worse has been taken away in the graph for clarity).

Figure 5.2: An overview of the eight factors in a Better-Worse diagram

From this figure, we can clearly find that six factors (Assurance, Ease of use, Accuracy, Responsiveness, Customization and Attractiveness) are much closer to the one-dimension aspect, while the factor of Community is much closer to the indifferent
aspect. However, the factor of Comparison is dissociated between one-dimensional, attractive and indifferent. So we can draw the same conclusion as the former analysis. Six factors of web site, Assurance, Ease of use, Accuracy, Responsiveness, Customization and Attractiveness, have positive influence to customer value. One factor of web site, Community, has little influence to customer value. And one factor of web site, Comparison, has influence to customer value, but the influence varies from different people and the influence is not as obvious as the former six factors.

### 5.4 Importance index & Indifference index

In order to make the result more clear and consistent, we would like to introduce two indexes in our research: Importance index & Indifference index. Importance index comes from the importance evaluation. Because the origin evaluation of importance employs five as the full scale, which seems hard to comparison, we set one as the full scale, then the mean evaluation becomes the importance index, the formulation of transferring is simple:

\[
\text{Importance index} = \frac{\text{Mean evaluation}}{5}
\]

Table 5.9 shows the importance index of each factor of web site.

Table 5.9 Importance index of each factor

<table>
<thead>
<tr>
<th></th>
<th>Mean evaluation</th>
<th>Importance index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attractiveness</td>
<td>3.73</td>
</tr>
<tr>
<td>2</td>
<td>Ease of use</td>
<td>4.55</td>
</tr>
<tr>
<td>3</td>
<td>Accuracy</td>
<td>4.63</td>
</tr>
<tr>
<td>4</td>
<td>Customization</td>
<td>4.24</td>
</tr>
<tr>
<td>5</td>
<td>Responsiveness</td>
<td>4.32</td>
</tr>
<tr>
<td>6</td>
<td>Community</td>
<td>2.22</td>
</tr>
<tr>
<td>7</td>
<td>Comparison</td>
<td>3.69</td>
</tr>
<tr>
<td>8</td>
<td>Assurance</td>
<td>4.88</td>
</tr>
</tbody>
</table>

Indifference index comes from the evaluation using Kano model. We can find that in
Figure 5.2, the distance between the spot of each factor and the Indifference spot, shows the degree of the influence. The bigger is the distance, the stronger does the influence. Also in order to make it more comparable, we set the full scale as one, then Indifference index is formulated as follows:

\[
\text{Indifference index} = \sqrt{\frac{\text{Better}^2 + \text{Worse}^2}{2}}
\]

Intuitively, Indifference index can be illustrated as the distance between the spot of each factor and the Indifference spot, just like Figure 5.3 shows. But owing to its full scale of one, they are different in numerical value. Anyway, it will not affect its meaning.

Table 5.10 shows Indifference index & Importance index of each factor. We can find that these two indexes almost come to the same conclusion, just analyzed before. In this sense, we can conclude that our empirical investigation is valid and reliable.
Table 5.10: Indifference index & Importance index of each factor

<table>
<thead>
<tr>
<th></th>
<th>Better</th>
<th>Worse</th>
<th>Indifference index</th>
<th>Importance index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Attractiveness</td>
<td>0.69</td>
<td>0.68</td>
<td>0.69</td>
</tr>
<tr>
<td>2</td>
<td>Ease of use</td>
<td>0.89</td>
<td>0.91</td>
<td>0.90</td>
</tr>
<tr>
<td>3</td>
<td>Accuracy</td>
<td>0.89</td>
<td>0.86</td>
<td>0.88</td>
</tr>
<tr>
<td>4</td>
<td>Customization</td>
<td>0.75</td>
<td>0.71</td>
<td>0.73</td>
</tr>
<tr>
<td>5</td>
<td>Responsiveness</td>
<td>0.8</td>
<td>0.76</td>
<td>0.78</td>
</tr>
<tr>
<td>6</td>
<td>Community</td>
<td>0.13</td>
<td>0.05</td>
<td><strong>0.10</strong></td>
</tr>
<tr>
<td>7</td>
<td>Comparison</td>
<td>0.66</td>
<td>0.42</td>
<td>0.55</td>
</tr>
<tr>
<td>8</td>
<td>Assurance</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Furthermore, we can use these two indexes to sign the influence of each factor towards customer value, just like Figure 5.4 shows:
5.5 Summary

Our intention of empirical investigation is to prove whether the eight factors of web site have influence to customer value. In order to reach this purpose, two methods are employed. One is use the importance evaluation, and the other is the evaluation using Kano model. Using the two methods, we came to the almost same conclusion:

1. Six factors of web site, Assurance, Ease of use, Accuracy, Responsiveness, Customization and Attractiveness, have positive influence to customer value. And factors of Assurance, Ease of use, Accuracy have strong influence, factors of Responsiveness while Customization have relative strong influence and factor of Attractiveness only has relative weak influence.

2. Factor of Comparison, also has positive influence to customer value, but the influence varies from different people and the influence is not as obvious as the former six factors.

3. Factor of Community, has little influence to customer value.

4. In order to compare the result coming from two methods, we set Importance index and Indifference index. The result of comparing these two indexes shows that our empirical investigation is valid and reliable. Furthermore, we find that using the two indexes is really a good way to evaluate the degree of influence.
6 Conclusions

This chapter presents the conclusions of this dissertation. To begin with, we summarize the dissertation, and then the methodological critique is presented. Afterwards, we give some suggestions about the further research. In the end of this chapter is the practical implication.

4.1 Summary of the dissertation

The large amount of Internet users makes Internet to be a huge potential market. At the same time, e-commerce which transacts over Internet is becoming the current trend (Vine, 2000). Web site plays a very crucial role as a carrier of e-commerce. So how to build a web site with high customer value is the first topic for those companies intending to start B2C business on line.

The purpose of this dissertation is to find the key factors of web site which influence customer value.

In order to do this, we examine the role of web site from a marketing perspective in the first place and then get a full understanding of customer value. On base of these, we identify eight factors of web site which influence customer value: Attractiveness, Ease of use, Accuracy, Customization, Responsiveness, Community, Comparison and Assurance. Then a survey with questionnaire method was employed. As to the design and analysis of the questionnaire, the Kano model was used.

The result of our survey showed that seven factors of web site - Assurance, Ease of use, Accuracy, Responsiveness, Customization, Attractiveness and Comparison, have positive influence to customer value while Factor of Community, has little influence to customer value. In addition, we introduced Importance index and Indifference index to evaluate the influence; under this way, we proved the validity and reliability of our investigation.

At last, we come to our conclusion that web site act as a medium of marketing,
enhancing the marketing mix and endowing the marketing mix with new features; customer value is a comparison of benefit and cost, having both psychic value and utility value and covering the whole customer activity; seven factors of web site influence customer value at different degree respectively while factor of community has little influence.

4.2 Methodological critique

There are limitations in our research which leaving opportunities for further research. First of all, we identify the eight key factors from literature review, using secondary data. This method is not as sufficient as the approach such as a deep interview, using primary data. Secondly, our results were based on the information collected from a questionnaire investigated among students. This kind of investigation on such small group of the whole population has big possibility to be away from the reality. Thirdly, our investigation measures customer indirectly evaluation instead of directly actual customer behavior while purchase. The latter one enables more correct picture of customers’ assessment. The last is that we introduced Indifference index and Importance index to evaluate influence. That is our innovation but which still need to be proved.

4.3 Further research

Our intention is to find the key factors of web site which influence customer value. With the limitations of our research, we give some suggestions on further research.

- A deep interview can be conducted to find the key factors of web site which influence customer value.

- A full scale survey can be conducted on web site, orienting to more big random sample.

- Case study can be used. A web site can be positioned and let visitor to evaluate the factor and the whole web site in a real context.

- Indifference index and Importance index can be tested to evaluate other kinds of influence.

- Web site for specific product can be pointed to investigate its key factors which influence customer value.
4.4 Practical implication

Our research gives companies a rather full understanding of the role of web site in a marketing perspective and customer value, which is helpful to make the marketing strategy. The result of our research give companies some hint that community is somehow no need to be considered to put into the web site while other factors such as Assurance, Ease of use, Accuracy, Responsiveness, Customization, Attractiveness and Comparison, are essential competing with competitors. In addition, Assurance, Ease of use, Accuracy are the most important for a web site to attract and retain customers.
7 References:


Hall, Harlow.


Lidsky, David (1999). Getting Better All the Time; Electronic Commerce Sites, *PC Magazine*, 17 (October 5), 98.


Peter, J.P. and Olson, J.C. (1990), *Consumer Behavior and Marketing Strategy, 2nd ed.*, Irwin, Homewood, IL.

Poleretzky, Zoltan (1999). The Call Center & e-Commerce Convergence, *Call Center Solutions*, 7 (January), 76.


8 Appendix: Questionnaire

Questionnaire

Our research focuses on web site and customer value.

Age: □ Less than 19 years old; □ 19-22; □ 23-26; □ More than 26 years old.

Sex: □ Female; □ Male.

Do you have experience purchasing on web site? □ Yes; □ No.

How often have you purchased products or service on web site during the past 12 months?

□ Never; □ Seldom; □ Often.

How do you evaluate the importance of web site’s function, supposing you intend to purchase on web site?

Note: 1: unimportant; 2: little important; 3: a little bit important; 4: important; 5: very important

<table>
<thead>
<tr>
<th>Functions of web site</th>
<th>Your comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The design of web site is appealing.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2 The web site is easy to navigate.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3 Information of the web site is up-to-date and correct.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4 The web site provides information and products according to your preferences.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5 The company answers your request quickly.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6 The web site has a forum or chat room for the customers to communicate with each other.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7</td>
<td>The web site enables you compare the product and price easily.</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>The web site protects your private information and its payment system is secure.</td>
</tr>
</tbody>
</table>

Supposing you intend to purchase on web site, and web site is described as below, how do you feel? 1:Dissatisfied; 2:Neutral; 3:Satisfied

<table>
<thead>
<tr>
<th>1</th>
<th>The design of web site is <strong>appealing</strong>, how do you feel?</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The design of web site is <strong>not appealing</strong>, how do you feel?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>The web site is <strong>easy to navigate</strong>, how do you feel?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The web site is <strong>not easy to navigate</strong>, how do you feel?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Information of the web site is <strong>up-to-date and correct</strong>, how do you feel?</td>
<td>1</td>
<td>2</td>
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<td></td>
<td>Information of the web site is <strong>not up-to-date or correct</strong>, how do you feel?</td>
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<td>4</td>
<td>The web site provides information and products <strong>according to your preferences</strong>, how do you feel?</td>
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<td>The web site provides information and products <strong>not according to your preferences</strong>, how do you feel?</td>
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<td>5</td>
<td>The company <strong>answers your request quickly</strong>, how do you feel?</td>
<td>1</td>
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<td></td>
<td>The company <strong>answers your request slowly</strong>, how do you feel?</td>
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<td>6</td>
<td>The web site <strong>has a forum</strong> for the customers to communicate with each other, how do you feel?</td>
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<td>The web site <strong>has not a forum</strong> for the customers to communicate with each other, how do you feel?</td>
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<tr>
<td>7</td>
<td>The web site <strong>enables you compare</strong> the product and price easily, how do you feel?</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td></td>
<td>The web site <strong>does not enable you compare</strong> the product and price easily, how do you feel?</td>
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<td>8</td>
<td>The web site <strong>guarantees the security</strong> of your private information and the payment system, how do you feel?</td>
<td>1</td>
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<tr>
<td></td>
<td>The web site <strong>can not guarantee the security</strong> of your private information and the payment system, how do you feel?</td>
<td>1</td>
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</tr>
</tbody>
</table>