

Master thesis on topic:

Customer experience in online retail quality:

Investigating the effect of online customer experience on customer satisfaction and loyalty intentions

Submitted by

Lyudmila Vafaeva

Supervisor:

Birgitta Olsson

Examiner:

Richard Ek

Department of Service Management

In fulfillment of the requirements for the Degree of Master of Science in Service Management: Retail

Lund University

Helsingborg, Sweden
May 2013

Contents

ABSTRACT	3
1 INTRODUCTION	4
2 RESEARCH BACKGROUND	5
2.1 THE GROWING INTEREST IN CUSTOMER EXPERIENCE.....	5
2.2 RESEARCH QUESTION AND OBJECTIVES	8
3 LITERATURE REVIEW	10
3.1 INTRODUCTION	10
3.2 ONLINE RETAIL QUALITY FROM SERVICE MANAGEMENT PERSPECTIVE.....	10
3.2.1 <i>Total perceived quality</i>	11
3.2.2 <i>SERVQUAL – a measure of service quality</i>	12
3.2.3 <i>Online service quality measurement</i>	13
3.3 FROM ONLINE SERVICE QUALITY TO ONLINE EXPERIENCE QUALITY	15
3.4 CUSTOMER EXPERIENCE	16
3.4.1 <i>What is meant by customer experience: the different definitions of customer experience</i>	16
3.5 PREVIOUS RESEARCH ON CUSTOMER EXPERIENCE	17
3.5.1 <i>The components of customer experience</i>	18
3.6 ONLINE CUSTOMER EXPERIENCE	21
3.7 SUMMARY	25
4 DEVELOPMENT OF THE CONCEPTUAL MODEL	26
5 METHODOLOGY	28
5.1 RESEARCH PHILOSOPHY AND RESEARCH PURPOSE	28
5.2 RESEARCH APPROACH	29
5.3 RESEARCH STRATEGY	31
5.4 RESEARCH INSTRUMENT	33
5.4.1 <i>Data collection method</i>	33
5.4.2 <i>Development of the questionnaire</i>	35
5.5 SAMPLE DESIGN	37
5.6 ACCESS	38
5.7 DATA ANALYSIS	39
5.8 RELIABILITY AND VALIDITY	40
5.8.1 <i>Research reliability</i>	40
5.8.2 <i>Research validity</i>	41
6 RESULTS	43
6.1 SAMPLE CHARACTERISTICS	43
6.2 ONLINE SHOPPING BEHAVIOUR	44
6.3 FACTOR ANALYSIS	46
6.4 MULTIPLE REGRESSION ANALYSIS	51
6.4.1 <i>Evaluation of dimensions of online experience and customer satisfaction</i>	51
6.4.2 <i>Evaluation of dimensions of online experience and customer loyalty</i>	52
7 DISCUSSION AND IMPLICATIONS	53
7.1 COMPONENTS OF ONLINE CUSTOMER EXPERIENCE	53
7.2 THE EFFECT OF ONLINE CUSTOMER EXPERIENCE ON CUSTOMER SATISFACTION AND LOYALTY INTENTIONS.....	56

7.2.1 Conclusion	58
7.3 PRACTICAL IMPLICATIONS	59
8 LIMITATION AND FURTHER RESEARCH	62
9 BIBLIOGRAPHY	63
10 APPENDIXES	67
APPENDIX 1. RESEARCH INSTRUMENT	67
APPENDIX 2. LETTER TO UNIVERSITY STAFF	70
APPENDIX 3. RESULT OF STATISTICAL ANALYSIS	71

LIST OF TABLES AND FIGURES

Figure 1. Evolution in the nature of competitive differentiation.	6
Figure 2. The Progression of Economic Value.	7
Figure 3. Total Perceived Quality.	12
Figure 4. Conceptual model of customer experience quality.	21
Figure 5. Conceptual model of online customer experience.	23
Figure 6. Main building blocks of Web experience and their sub-categories.	25
Table 1. Dimensions of online customer experience in cross-reference with previous research.	26
Table 2. Data requirement s table. Adapted from Saunders at al. (2010)	35
Table 3. Sample profile	44
Figure 8. Frequency of online purchases.	44
Figure 9. Types of products purchased online	46
Table 4. Rotated factor matrix for dimensions of online customer experience	50
Table 5. Measures of model suitability for exploratory factor analysis.....	71
Table 6. Multiple regression analysis results predicting customer satisfaction	71
Table 7. Multiple regression analysis results predicting customer loyalty intentions	71

Abstract

Online retail is playing an ever increasing role in business today and one of the critical tasks in online retail management is the understanding of how to create an offering that would yield maximum value for the consumers and differentiate the retailer from competition. If an online retailer understands how the online retail offering is perceived and evaluated by customers, it becomes possible to identify how to manage these evaluations and influence them in a direction necessary for the retailer. The present research has been undertaken in an attempt to expand the currently existing measures of online retail quality by incorporating the concept of customer experience and identifying the wide range of attributes that are evaluated by consumers during their online shopping process. Specifically, the effect of customers' evaluation of the online experience on customer satisfaction and loyalty intentions has been examined. As a result of the obtained findings, eight components of online customer experience have been identified. Website usability, followed by Fulfillment, Customer support, Security and Networking/customization were found to be the predictors of customer satisfaction in online retail, while Website usability and Fulfillment contributed to the prediction of customer loyalty intentions. A range of implications are drawn based on the obtained findings at the end of the present research.

1 Introduction

Online retail is playing an ever increasing role in business today. As multichanneling is promised to become the next evolutionary stage of retail institution, understanding of online retail management is becoming important not only for pure virtual retailers but also for traditional retailers that are taking over the online retail market with a growing speed. One of the critical tasks in online retail management is the understanding of how to create an offering that would yield maximum value for the consumers and differentiate the retailer from competition. A number of previous researches have been devoted to the study of online retail quality, that have identified factors such as website efficiency and usability, fulfillment, reliability, security and customer service as the components of online retail quality that are evaluated by consumers (Parasuraman *et al.*, 2005; Holloway and Beatty, 2008). However, some of the recent literature makes it possible to assume that online retail involves a broader set of attributes evaluated by the consumers that go beyond the transaction process and that can be characterized as a wider concept of *customer experience*.

The concept of customer experiences has attracted an increasing attention in the recent practical and academic business literature. First introduced by Holbrook and Hirschman (1982) and further expanded by Pine and Gilmore (1996) the concept describes purchasing behaviour as stretching beyond the functional purpose and also serving consumers' hedonic intentions and social needs. The implications of these researches is that for consumers it is not only the pragmatic attributes of products and service quality that are evaluated but also broader experiences such as the fun of shopping, aesthetics, and opportunity for social interaction during the shopping process that are assessed. Thus, the present research has been undertaken in an attempt to expand the currently existing measures of online retail quality by incorporating the concept of customer experience and identify the wide range of attributes that are evaluated by consumers during their online shopping.

The following report provides a presentation of the carried out research. The report begins with an overview of the research background followed by a presentation of research question and objectives. Further, an extensive overview of literature is provided where traditional measures of service quality and online retail quality are reviewed followed by an overview of previous studies in the area of customer experience. Following the literature review the research methodology is described and results are presented. The final

section of the report presents a reflection on the obtained results together with some practical implications that were drawn from the findings. At the end of the report, some limitations of the present research and opportunities for further research are listed.

2 Research background

2.1 The growing interest in customer experience

More and more academic literature today talks about the major changes in the nature of competition between companies. As expressed by Palmer (2010), what we are experiencing in the current business environment is a shift in the basis for competitive differentiation between companies. Specifically, the author states that the ability to manage *customer experience* is becoming the main source of competitive advantage for companies. For many years the classical economic theory has considered the consumer as a logical thinker who makes buying decisions based on rational problem solving. This notion relates to the core product perspective, according to which tangible product qualities were considered the main source of competitive advantage (Christopher *et al.*, 1991). However, since tangible characteristics can be easily imitated, competition based on product qualities had eventually reached a plateau, and the focus in differentiation shifted to services. According to the service perspective, competitive advantage could be created by providing customers with an appropriate variety of services that support their activities and processes in addition to the core product (Grönroos, 2007). Yet, what has been noted by Palmer (2010) is that the nature of services that can be provided to customers in one product categories tends to become generic, thus, also eliminating the necessary basis for differentiation. What could create actual differentiation, according to Palmer (2010), is competition based on experiential values (See Fig. 1). In one of the earliest accounts of the concept of customer experience, Abbott (1955 cited in Holbrook, 2006, p. 40) stated that:

“What people really desire are not products, but satisfying experiences. Experiences are attained through activities. In order that activities may be carried out, physical objects for the services of human beings are usually needed. Here lies the connecting link between men’s inner world and the outer world of economic activity. People want products because they want the experience which they hope the products will render.”

Further, in the mid-1980s, Holbrook and Hirschman (1982) conceptualized the experiential view to understanding of consumer behaviour by giving consideration to variables of consumption process that were previously neglected, and taking into account “the role of emotions in behavior; the fact that consumers are feelers as well as thinkers and doers; the

roles of consumers, beyond the act of purchase, in product usage as well as brand choice” (Addis and Holbrook, 2001, p. 50). They proposed to extend the prevalent at that time perception of consumer as a logical thinker who solves problems to make purchasing decisions, by drawing attention to factors such as (1) the role of aesthetic products, (2) multisensory aspects of product enjoyment, (3) the syntactic dimensions of communication, (4) time budgeting in the pursuit of pleasure, (5) product-related fantasies and imagery, (6) feelings arising from consumption, and (7) the role of play in providing enjoyment and fun (Holbrook and Hirschman, 1982).

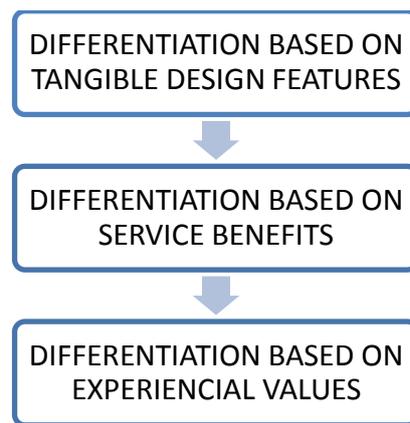


Figure 1. Evolution in the nature of competitive differentiation.

Source: Palmer (2010), p. 197

However, the actual spur of interest in the concept of customer experience has taken place in the 1990s with the publishing of the works by Pine and Gilmore (1998, 1999) and their introduction of the concept of experience economy. Pine and Gilmore (1999) refer to experiences as a separate type of economic offering along with commodities, goods and services. While previously experiences have been grouped together in the services category, Pine and Gilmore (1999) assert that experiences as an offering differ from services in the same way as services differ from goods. In fact, it is suggested by the authors that economic offerings progress in terms of value they provide to the consumers, with each successive offering from commodities, to goods, services and experiences rising in value compared with the previous one as it becomes more relevant to the needs of the consumer (see Figure 2). And, since there are more possibilities to differentiate experience offerings, companies can charge a premium price based on the unique value that they provide and not the market price of the competition (Pine and Gilmore, 1999).

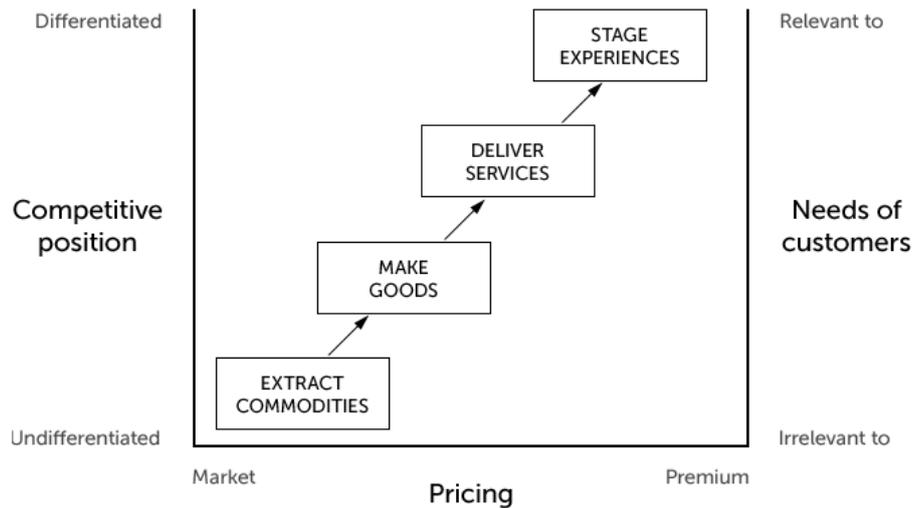


Figure 2. *The Progression of Economic Value.*

Source: Pine and Gilmore (1999), p. 22

As it can be seen, the existing literature provides considerable ground for the growing interest in the concept of customer experience since careful management of customer experiences can lead to a greater value delivered to the customers. However, in order to be able to manage customer experiences in the desired direction, it is necessary to understand what customers are really looking for and how they evaluate their shopping experience. All of the above considerations can be extended to both traditional market offering as well as to the online environment.

Taking the above into consideration, the following research has concentrated on a comprehensive study the concept of customer experience and specifically on the exploration of how customers evaluate their shopping experience. In particular customer experience in the online environment has been chosen for the purpose of the present research due to the increasing role of the Internet in the current business setting. Understanding what creates value for consumers when we talk about online shopping is one of the key prerequisites to utilizing information technologies in the most efficient way. The distinctive feature of the undertaken research is that it examines the effect of the customers' evaluation of individual components of online customer experience on marketing outcomes such as customer satisfaction, and loyalty intentions. Understanding the components of customer experience and their effect on consumer behaviour holds large practical implications for online retail companies. Such knowledge will allow online retailers to design and deliver an experience that would set them apart from competition in the eyes of the customers, increase customers' share of wallet with the company and,

optimally, inspire loyalty to its brand. In addition, by knowing which components have the greatest effect on consumer behaviour, retailers can pay specific attention to the design of these components in the overall online customer experience offering. Additionally, there are broader theoretical implications of examining online customer experience, specifically, this research makes a contribution by adding empirical findings to so the far limited research in the area.

2.2 Research question and objectives

The overall aim of the present research has been devised in a two-fold question as:

What are the components that constitute customer experience quality in online retail and how does the evaluation of these components by customers affect customer satisfaction and loyalty intentions?

In order to define the set research question it has been divided into four sub-questions. By dealing with the smaller sub-questions in turn it was possible provide the answer to the broader main research question. Specifically, the following sub-questions have been formulated:

1. ***What is service quality and how is service quality measured in online retail?***
2. ***What constitutes customer experience in online retail service?***
3. ***How do the components of online customer experience complement the traditional measures of online retail quality?***
4. ***What are the components of online customer experience quality that affect customer satisfaction and loyalty intentions?***
5. ***How are customer satisfaction and loyalty intentions affected by the various online customer experience quality components?***

Based on the formulated research questions, the objectives of the research were defined as the following.

Objective 1. To examine, using previous literature, the methods of measurement of online retail quality;

Objective 2. To review literature on the concept of customer experience in order to identify how the concept could be incorporated into an improved measure of online retail quality;

Objective 3. Using the findings from Research Objective 1 and 2 to devise a theoretical construct of online customer experience;

Objective 4. To identify how the evaluation of the customer experience components identified in Objective 3 affect customer satisfaction and loyalty intentions;

Objective 5. To derive managerial implications and develop a set of practical recommendations for online retail marketing based on the obtained findings.

3 Literature review

3.1 Introduction

The following literature review is designed to serve a number of key purposes. Firstly, it aims to review existing literature in the area of retail quality and customer experience so as to obtain a context in the subject. Secondly, it serves to evaluate the various previous researches employed in the area in order to aid the development of a methodology suitable for the specific purposes of the present study.

We begin our literature review with an overview of how consumers perceive retail quality in order to aid our understanding of how to incorporate the concept of customer experience in the evaluation of online retail quality. Further, we look at the measures of quality in previous research both in traditional environment and online. At the end of this section some limitations of the existing measures of retail quality are brought forward and how the concept of customer experience can enrich the existing measures is discussed. In the next section of the literature review the concept of customer experience is examined in detail. In the final section of the literature review an overview of previous studies, both conceptual and empirical, is carried out. The aim of this part of the overview is to carefully examine the different components of customer experience as identified in the previous literature in order to aid the development of a theoretical construct of online customer experience for further testing. The developed theoretical construct is brought forward at the end of the literature review.

3.2 Online retail quality from service management perspective

Provision of goods or services by retailers online has been traditionally considered a service (Grönroos, 2007, p. 199) and, therefore, understanding and measurement of online retail quality has been carried out from the service marketing perspective in much of the previous academic and practical literature. The following section describes how online retail quality has been understood and measured in previous literature from the service marketing perspective. Further, a section outlines the rationale for a renewed study of online retail quality based on the construct of customer experience.

3.2.1 Total perceived quality

Unlike for quality of goods, the quality of services cannot be assessed based on evaluation of physical attributes due to the three unique features of services: intangibility, heterogeneity, and inseparability of production and consumption (Parasuraman, *et al.*, 1985). Instead, it has been established in service quality literature that quality of a service is measured through consumer' perceptions of quality (Grönroos, 2007). Grönroos (1984, p.37) defined the concept of perceived service quality as “the outcome of an evaluation process, where the consumer compares his expectations with the service he perceives he has received”. Specifically, Grönroos, (2007) discusses two dimensions of service quality perceived by consumers (p. 73). The first dimension is the technical quality that characterizes the direct outcome of the service provided or, in other words what eventually remains for the customer once the service production process is completed and the interaction with the service provider ends, such as a restaurant meal, transportation from one point to another, or, in the case of retail, acquisition of a product. While it is essential to consumers what they will receive as a result of the service process, and hence important to their evaluation of the service quality, at the same time the customers are also affected by how the final outcome is delivered to them. Evaluation of how consumers experience the service encounters refers to the second dimension of the service quality – functional quality. In retail the appearance of the sales personnel and their performance as well as the store atmospherics affect consumers' evaluation of the functional quality. In online retail the website appearance, user interface and navigation constitute distinctive functional quality characteristics. Some services in the service package are perceived as both technical and functional quality, for example delivery, repair and maintenance. In addition to the two dimensions, perception of service quality by consumers is also affected by company image. Positive company image may improve quality perception, while negative image tends to amplify negative quality attributes.

However, perception of service quality by consumers is considered subjective and is not determined just by customers' evaluation of technical and functional quality attributes. In reality the total perceived quality is determined by how the experienced service quality meets the expectations about the service (expected quality) held by the consumer. The expected quality in its turn is formed by several factors, namely, marketing communication, price, word-of-mouth, image, PR, as well as customer needs and values. Figure 3 summarizes Grönroos's total perceived quality concept based on the disconfirmation construct.

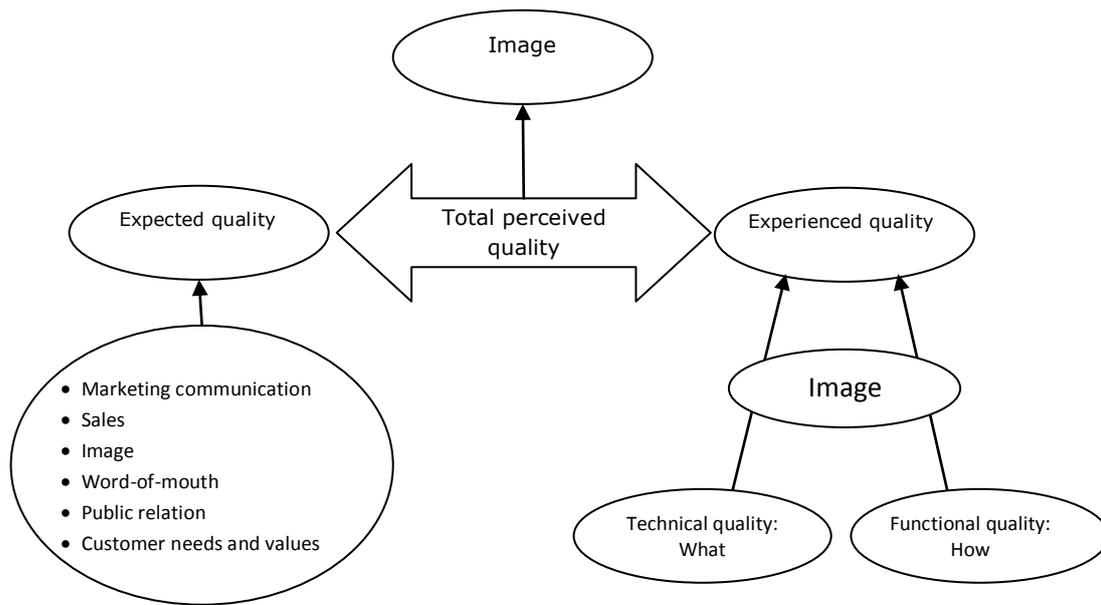


Figure 3. Total Perceived Quality.

Source: Grönroos, 2007, p. 77

3.2.2 SERVQUAL – a measure of service quality

Parasuraman, *et al.* (1988) further examined how consumers evaluate the quality of service based on perceived service quality concept. They defined service quality as “the overall evaluation of a specific service firm that results from comparing that firm’s performance with the customer’s general expectations of how firms in that industry should perform” (Parasuraman, *et al.*, 1988, p.15). Based on this definition the authors developed their multi-dimensional service quality assessment tool known as SERVQUAL. According to the model, five attribute dimensions determine consumers’ perceived service quality in service businesses and retailing organizations. The five dimensions include:

1. *Tangibles.* This dimension is related the physical attributes of the provided service such as facilities, equipment and appearance of the personnel
2. *Reliability.* This dimension represents the firm’s ability to deliver the promised service in a dependable and accurate manner.
3. *Responsiveness.* This dimension represents the firm’s willingness to help customers and deliver prompt service.
4. *Assurance.* This dimension is associated with employees’ ability to demonstrate knowledge, and inspire trust and confidence.

5. *Empathy*. This dimension relates to how the firm manages to demonstrated care and individualized attention towards its customers.

In order to assess perceived service quality using the SERVQUAL instrument, consumers are asked to rate what they expected from a service in relation to the 22 attributes and how they perceived the delivered service. The service quality score is then calculated based on the differences between expectations and experiences across the defined attributes (Grönroos, 2007, p. 84).

3.2.3 Online service quality measurement

It is regarded that the quality attributes perceived by consumers in online service encounters differ from the determinants of quality in traditional service delivery (Holloway and Beatty, 2008, p 349). Mainly this is due to the fact that in the electronic environment essential customer-employee interaction has been replaced by technology and instead of employee interaction consumers assess quality of online services based on technology-related attributes such as ease of navigation, payment security and privacy (*ibid.*). It is also argued that online shopping experience is more complicated than traditional shopping due to the extensive use of technology (Constantinides, 2004, p. 113). Therefore, a range of studies have been conducted in attempt to assess the determinants of service quality for online services. In the following section some of the models used to assess how consumers perceive the quality of online services and what are the sources of consumer satisfaction (dissatisfaction) during online shopping experiences are reviewed.

Some of the most comprehensive studies in online service quality measurement include the works of Parasuraman *et al.* (2005), and Holloway and Beatty (2008). These works will further be discussed in greater detail in order to gain an understanding of existing theories on online service quality.

Parasuraman, *et al.* (2005) conducted a multi-stage study involving a range of focus groups and developed a scale to measure the service quality delivered by online retailers (E-S-QUAL). The scaled consisted of 22 items on four dimensions relating to online service quality. The dimensions included:

1. *Efficiency*. Efficiency denoted the ease and speed with which consumers can access and use the retailer's website.

2. *Fulfillment*. This dimension measures the degree to which the promises about order delivery and item availability stated on the website are fulfilled.
3. *System availability*. This dimension is the measure of how well the website functions in technical terms.
4. *Privacy*. Privacy dimension relates to how safe if the website and to what extent the customer information is protected.

In addition the authors have found it necessary to construct a separate scale to include quality assessment of recovery services provided by the websites in response to problems. The rationale for a separate scale was that for those customers who did not have problems with the service it would be impossible to assess how the retailer handles service recovery. The scale was labeled e-recovery service quality scale (E-RecSQUAL) and included 11 items on three dimensions, namely:

1. *Responsiveness*. This dimension measures how effectively problems and product returns are handled by the retailer.
2. *Compensation*. Compensation refers to the degree to which customers are compensated in case of problems.
3. *Contact*. This dimension assesses the availability of assistance provided to consumers via online representatives or through the telephone.

In the measure of the relative importance of the identified quality dimensions Parasuraman, *et al.* (2005, p. 228) have found that factors relating to efficiency and fulfillment have the strongest effect on customer loyalty intentions, followed by factors relating to system availability and then privacy.

In their study Holloway and Beatty (2008) examined the drivers of online customer satisfaction and dissatisfaction. The study resulted in formation of 4 dimensions that relate to customers' satisfaction or dissatisfaction with online service encounters. The four dimensions identified in the study included:

1. Website Design/Interaction
2. Fulfillment/Reliability
3. Customer Service
4. Security/Privacy

Within each dimension Holloway and Beatty (2008) identified a range of specific drivers of online customer satisfaction or dissatisfaction. As it has been revealed, among US consumers' drivers associated with *Website Design/Interaction* dimension were mentioned most frequently as cause of satisfaction or dissatisfaction with their online encounters. This dimension embraces consumers' contact with interface of the website, which includes factors such as the website design, navigation, purchase process as well as general website quality. This dimension was most frequently mentioned as satisfier. Specifically, the main drivers of customer satisfaction within this dimension were Website Convenience/Ease of Use and Price of Offerings. The main drivers of satisfaction related to customers' overall website experiences were Purchase process and Information quality.

Fulfillment/Reliability was second most mentioned dimension in terms of driving online consumer satisfaction and dissatisfaction. Drivers within this category related to how timely and accurately the service is fulfilled, including consistency of received products with website description, and delivery process. Notably, consumers were mostly dissatisfied with drivers within this dimension. Most dissatisfactory driver mentioned by customers within this category was Timeliness of delivery, however, at the same time it was often mentioned as a satisfier. *Customer Service* was the third most cited dimension. This dimension related to the quality of customer support provided throughout the buying process, that is before, during and after the actual purchase. Interestingly, customer service was mostly associated with customer dissatisfaction rather than with satisfaction. The fourth dimension *Security/Privacy* related to safety of personal information provided on the website as well as protection against violations. This dimension was mentioned most seldom and mostly in association with customer satisfaction.

3.3 From online service quality to online experience quality

The SERVQUAL, E-S-QUAL and E-RecSQUAL are the most widely researched and applied measures of customer quality in traditional and online environments (Klaus, 2010). However, despite their prominence, the measures have received criticism for having conceptual, methodological and interpretative flaws (Klaus, 2010, Liljander and Strandvik 1997; Grönroos, 2007). Specifically, some of the critiques hold that these measures are not universal and need to be carefully reassessed and adapted according to the specific context studied (Buttle, 1996); while some prescribe care to be taken when interpreting the results obtained using the measures (Liljander and Strandvik, 1998). Most importantly, some scholars point out that these measures are developed based on a flawed paradigm calling

for new measures to be developed (Edvardsson *et al.* 2000, Edvardsson, 2005). The main point in this argument is that SERVQUAL and online service quality measures derived from it focus purely on the functional aspects of the service quality and do not capture the entire interaction of the customer with the retailer (Buttle, 1996). Therefore, there is a need for a different measure of retail quality both in traditional service and online that would measure the full richness of the customer's service encounter. The concept of customer experience provides a holistic view on service and serves as a viable construct for a more comprehensive measure of service quality. In the following section, the concept of customer experience is discussed in more detail so as to provide a context of how the concept of customer experience can be incorporated in the measure of online retail quality.

3.4 Customer experience

Based on the previous discussion on customer experience as an improved measure of service quality, the present section provides an overview of the concept of customer experience.

3.4.1 What is meant by customer experience: the different definitions of customer experience

The concept of customer experience is broadly defined in different sources, which often poses a barrier for the understanding as well as adoption of the concept in research and practice (Palmer, 2010). The present section is intended to provide a deeper understanding of the discourse on customer experience in academic literature as well as to delimit how customer experience is understood in the framework of the present research.

Pine and Gilmore (1998, pp. 11) identified experiences as an offering that occurs “whenever a company intentionally uses services as the stage and goods as props to engage an individual”. The authors state that successful experiences are those that “a customer finds unique, memorable and sustainable over time” (p. 12). According to Pine and Gilmore's concept of experience economy, companies serve as stagers of experiences for customers, providing not separate goods or services, but the resulting experience that brings customers rich sensations, involving them on an emotional, physical, intellectual and even spiritual level.

At the same time, there is a different thread of definitions of customer experience that define the concept as a holistic process of all customers' interaction with the company. As

such, Meyer and Schwager (2007) provide a comprehensive definition of customer experience as a holistic process, defining it as “the internal and subjective response that customers have to any direct or indirect contact with a company” (p. 118). More specifically, according to Meyer and Schwager (2007), customer experience “encompasses every aspect of company offering - the quality of customer care, [...] also advertising, packaging, product and service features, ease of use, and reliability” (p. 118). Several other authors support this definition. Namely, Harris *et al.* (2003) state that: “total customer experience emphasizes the importance of all contacts that a consumer has with an organization and the consumer’s holistic experience” (p. 185). At the same time, Gupta and Vajic (2000, p. 34) claim that “an experience occurs when a customer has any sensation or knowledge acquisition resulting from some level of interaction with different elements of a context created by the service provider”.

For the purpose of the present research the concept of customer experience is understood according to the latter category of definitions, as a holistic interaction of the customer with the company and all aspects of the company’s offering.

3.5 Previous research on customer experience

Because there is an inconsistency in the interpretation, research on customer experience is rather dispersed. There are three main categories of literature related to customer experience that can be found. The first and main category is build around conceptual work on customer experience. The second category is based on empirical research in the area. And finally a portion of literature on the topic consists of practical recommendations for implementation of customer experience management. Much of the previous literature on customer experience is practitioner oriented, concentrating mainly on managerial implications of the practice rather than development of theory on customer experience (Verhoef *et al.*, 2009). As an example, Pine and Gilmore (1998, 1999) in their works related to experience economy devote much of their discussion to the reducing effectiveness of traditional brand marketing and communications without supporting empirically their assertions. Meyer and Schwager (2007) similarly discuss customer experience management as a practical approach. As the aim of the present study is to contribute to the development of theory in the area of customer experience, the focus of the following sections will be on the review of conceptual and empirical theoretical contributions to the field.

3.5.1 The components of customer experience

When talking about the components of customer experience, there is an important distinction that is made in previous literature. Specifically, Klaus (2010) underlines the distinction between the concrete attributes and the perceptual attributes of customer experience. He characterizes the concrete attributes or, in other words, the technical aspects of customer experience which act as the antecedents that trigger and influence the higher order perceptual attributes. These concepts are covered in more detail further.

As such, Gentile *et al.* (2007) used empirical analysis to understand the role of various higher order perceptual attributes of customer experience in the success achieved by well-known products. In their model Gentile *et al.* (2007) assumed that customer experience is a multidimensional structure composed of several basic components that are perceived by consumers as a unitary feeling rather than individually. Based on this assumption the authors conceptualized customer experience to be consisting of six components, including: sensorial, emotional, cognitive, pragmatic, lifestyle, and relational components. *Sensorial component* is a part of customer experience that is associated with the senses of the customer. In order to provide good sensorial experience, such as stimulate aesthetical pleasure, excitement, satisfaction, or sense of beauty, an offering needs to affect sight, hearing, taste and smell. By generating moods, feelings and emotions with its offering a company can establish *emotional component experiences* that can eventually lead to establishing of affective relation of the customer towards the company. The third component of customer experience that is related to thinking or conscious mental processes is referred to as the *cognitive component*. On cognitive level an offering can involve a customer by using his creativity and situations requiring problem solving. The *pragmatic component* is concerned with the practical part of the customer experience, including, but not limited to creating an offering that is exceptional in terms of usability at all stages of interaction with the product, including pre-purchase, purchase and post-purchase phases. The *lifestyle component* is a part of the customer experience that serves to relate to and affirm the values, beliefs, and lifestyle of the customer. In many cases this experience is achieved because the product and its consumption are associated with certain values shared by the customer and the company. Finally, the *relational component* of the customer experience according to Gentile *et al.* (2007) involves the relationship of the customer with the social context, with other people as well as with one's ideal self. This component of the experience may involve a shared consumption of the product or where a community may be formed around the interest in the product; additionally, when the consumption of the

product may lead to affirmation of the customer's social identity and belonging to a social group. This component is often linked to the previous lifestyle component.

In order to validate their model Gentile *et al.* (2007) carried out a survey that measured how customers perceive and evaluate the identified components of the customer experience during their interaction with a number of successful products. The study revealed that for successful products it is common to involve customers on more than one component, involving in various ways their senses, emotions, thoughts, acts, values and relations.

Two similar conceptual models concentrated on the higher order perceptual attributes of customer experience have been developed in other researches, including the works of Schmitt (1999) and Fornerino *et al.* (2006 in Gentile *et al.*, 2007). Namely, Schmitt (1999) devised a model of five Strategic Experiential Modules, involving sensory experiences (sense); affective experiences (feel); creative cognitive experiences (think); physical experiences, behaviours and lifestyle (act); and social-identity experiences arising when a person associates oneself with a certain reference group or culture (relate). Fornerino *et al.* (2006 in Gentile *et al.*, 2007) similarly identified five distinct components of a consumption experience as: sensorial-perceptual, affective, physical-behavioural, social, and cognitive.

Another category of literature concentrated on the technical aspects of customer experience that trigger and influence the higher order perceptual attributes. Specifically, Verhoef *et al.* (2009) examined existing literature on customer experience in order to explore the concept from a holistic perspective and proposed a conceptual model of determinants of customer experience. The authors view customer experience as the "customer's cognitive affective, emotional, social and physical responses to the retailer". In their proposition the authors assert that customer experience is created by two types of elements: elements which retailers can control, and elements that are beyond the control of the retailer. According to the proposed model, determinants of customer experience that can be controlled by the retailer include: *the social environment* (including other customers, reference groups, service personnel), *the service interface* (service person, technology, co-creation/customization), *the retail atmosphere* (design, scents, temperature, music), *the assortment* (variety, uniqueness, quality), *the price and promotions* (loyalty, programs, promotions), *customer experiences in alternative channels*, and *the retail brand*. At the same time, the model suggests that customer experience is moderated by factors outside of

the retailer's control, namely by *consumer moderators* and *situation moderators*. Consumer moderators that affect customer experience are the personal goals of the consumer (for example task-oriented versus experiential consumer) which are in turn shaped by consumer's personality traits, socio-demographics, location and situational circumstances. The situational moderators that affect customer experience include factors such as type of store (for example discount versus full service store); channel (traditional store versus online store); location (shopping center versus city center), culture (masculinity, individualism), season (for example, holiday season), economic climate (expansion versus recession); and competitive intensity. Finally, in their analysis the authors suggest that it is also the past customer experiences that affect future customer experiences. With the proposed model Verhoef *et al.* (2009) provide a valuable contribution to the conceptual development of customer experience theory, however, offer no empirical support for the proposed model.

Lemke *et al.* (2010) used a qualitative approach in order to devise a conceptual model for customer experience quality and its impact on customer relationships outcomes. The study interests with the methodology used to identify the components of customer experience. Specifically the authors used a qualitative method called the repertory grid technique which is a form of structured interviewing designed to elicit tacit knowledge such as experiences not perceived by consumers directly or those they may not have been consciously aware of. According to the method, respondents were asked to name three types of companies they had previous experience with: companies they had had a good experience with, a poor one, and an average experience. Further respondents were asked to reflect on the differences in experiences with the three types of companies. The study resulted in the development of 119 constructs by which customers construe experience quality, grouped into 17 categories. The entire conceptual model of factors in customer experience quality derived by Lemke *et al.* (2010) is illustrated in Figure 4. According to the model, the evaluation of customer experience quality is based not only on evaluation of company's products and service, but also on evaluation of relationship with other customers and communication encounters with the company. The authors also suggest that customer quality is judged with respect to its contribution to value-in-use, which can be utilitarian, hedonic, relational and value gained in return for costs/sacrifice. The value-in-use obtained by the customers in turn affects relationship outcomes such as commitment, purchase, retention, and word-of-mouth.

While the model provides a good foundation for evaluation of customer experience quality, the research could be extended by developing relevant scales for the concept that could measure the relative importance of the experience factors in the evaluation of quality.

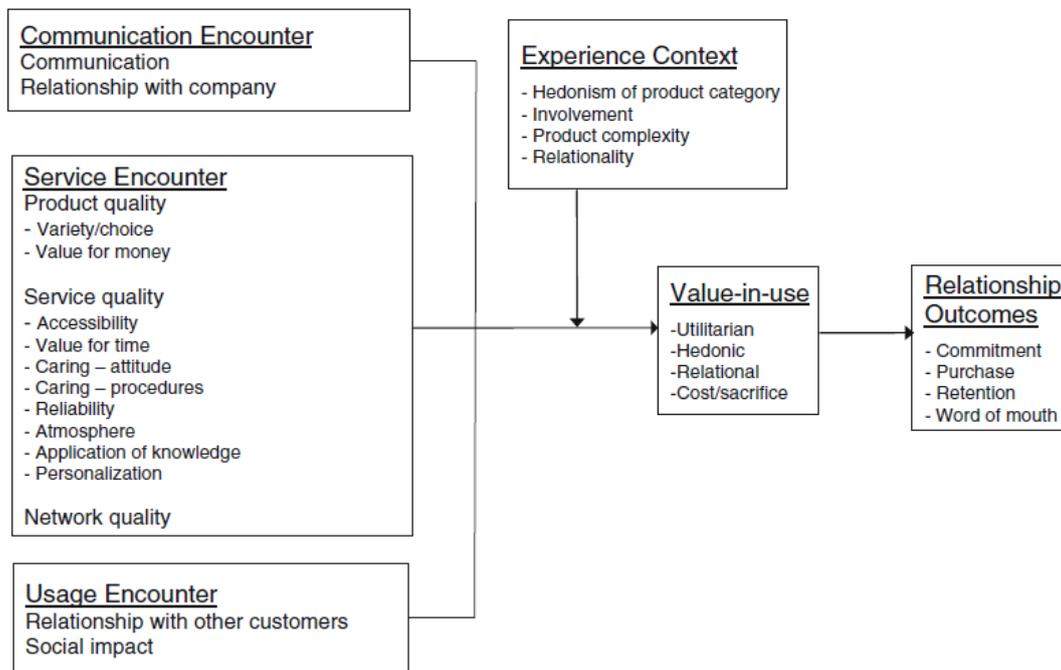


Figure 4. Conceptual model of customer experience quality.

Source: Lemke *et al.* (2010), p. 859

Together these models provide an insight into the different components that constitute customer experience, thus aiding our understanding of the concept. However, because the nature of customer interaction in the online environment is different compared to traditional offline environment, it is possible to assume that the components of customer experience in the online environment are different. Therefore, there is a need to separately examine previous research of customer experience in the online environment. In the following section an overview of previous studies in the area of online customer experience are examined with specific attention given to the various components of online customer experience.

3.6 Online customer experience

One of the most comprehensive researches on online customer experience is a study carried out by Rose *et al.* (2012). To define customer experience in online environment Rose *et al.* (2007) base on the definition of Gentile *et al.* (2007), stating that online customer experience is the “psychological state manifested as a subjective response to the e-retailer’s website”. When interacting with the retailer’s website the customer is engaged

in cognitive and affective processing of information that, as a result, forms an impression in the customer's memory (Rose *et al.*, 2007). In their work, the authors developed and empirically tested a model for customer experience in the online environment that included antecedents, components, and outcomes of online customer experience (see Fig. 5).

According to Rose *et al.* (2012) online customer experience, as well as customer experience in traditional environment, is composed of (1) *cognitive experience* and (2) *affective experience*. The authors used the conception of Gentile *et al.* (2007, p. 398) to define *cognitive experience* as the component of online customer experience "connected with thinking or conscious mental processes"; and *affective experience* as the component of online customer experience that "involves one's affective system through the generation of moods, feelings and emotions". Based on the developed model the authors asserted that the components of customer experience are affected by ten antecedent variables. The cognitive experience is affected by four variables: Telepresence, Level of Challenge, Skill, and Speed of Interactivity, which together comprise the *Flow* state in online environment as identified by Novak *et al.* (2000). The affective experience is formed by five antecedents. Firstly affective experience is influenced by the customer's Perceived Control which is in its turn formed by: ease-of-use (navigation, search, and functionality), customization (personal tailoring of website appearance and functionality); and connectedness (ability to connect and share knowledge and ideas with others in the virtual community). Secondly, customer's affective online experience is influenced by aesthetics, including the aesthetic features of the website of the e-retailer such as colour, graphics, layout and design. Finally, customer's affective online experience is influenced by perceived benefits or, in other words, the benefits customers perceive that they achieve as a result of the interaction with the online retailer. Such benefits usually include convenience, price comparison, saving time, enjoyment and enhanced customer-retailer relationship.

In their model the authors measured Satisfaction, Trust and Repurchase Intention as the three behavioural outcomes of online customer experience. The full model developed by Rose *et al.* (2012) with the corresponding relationships between variables can be observed in Figure 5. In order to empirically test the devised model the study employed a structured online questionnaire consisting of 61 scale items that assessed customers' most recent online experience. Some of the major findings of the given study included the observation of the fact that customer trust in the online retailer is greatly affected by the customer's level of satisfaction. In respect to the effect of different variables of online experience on

customers' repurchase intention it has been revealed that trust and satisfaction have the greatest influence on customers' repurchase intention.

Overall, the study provided a deep insight into online customer experiences, drawing on literature both from traditional and online retailing and presented empirical testing of the relationships between online customer experience antecedents, components and outcomes making a significant contribution to the study area.

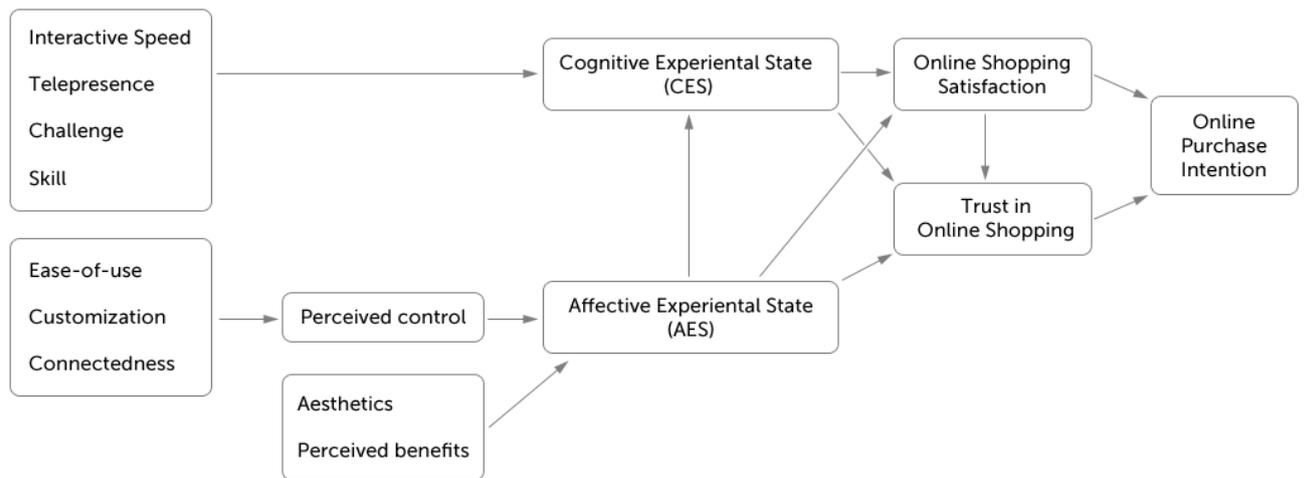


Figure 5. Conceptual model of online customer experience.

Source: Rose et al. (2012), p. 310

Nambisan and Watt (2011) conducted an empirical investigation of customer experience in the context of firm-hosted online product communities, emphasizing the role of customer interaction in the online experience. By using previous literature in the areas of computer-mediated communication, consumer psychology and online communities the authors developed a four-dimensional construct of Online Community Experience (OCE), including a *pragmatic dimension*, a *hedonic dimension*, a *sociability dimension*, and a *usability dimension*. While the pragmatic, hedonic and usability dimensions of OCE were found to be similar to the related dimensions found in other studies (e.g. Constantinides, 2004), this research provided practical contribution by adding the sociability dimension to the overall online customer experience construct. The sociability dimension, according to the authors, involves the social experience gained by customers through interaction in the online community. The social experience may be positive or negative, depending on the relationships of the customer with peer customers that constitute the social environment. Positive social experiences in an online community may lead to network ties and relationships (Nambisan and Watt, 2011). Another contribution of the present study is the fact that using the developed construct the authors further evaluated the effect of customer experiences in online communities on customer attitudes towards the product, the

company, and the quality of service. Results of a carried out survey have shown that pragmatic, hedonic and sociability dimensions of customer online community experience are positively associated with customer attitudes towards the product, the company, and perceptions of quality of service. No support was found for relationship between usability experience and customer attitudes.

Constantinides (2004) carried out a review of previous literature in order to identify and classify the elements of online experience. According to Constantinides (2004), online experience is the “customer’s total impression about the online company resulting from his/her exposure to a combination of virtual marketing tools” (p. 113). In his paper the author summarized 48 academic works in area of online consumer behaviour and devised a classification of three main categories and five sub-categories of online experience elements influencing consumer behaviour (Figure 6). The three main building blocks of online experience included Functional factors, Psychological factors, and Content factors. Functionality factors include the Usability and Interactivity components. Usability insures that the customer can easily browse and navigate the website, carry out product search, order, and payment processes. Interactivity involves interaction with the customer through functions such as customization, as well as communication with the other website users. The Psychological element, namely trust, is a required element that is meant to insure customer’s safety of information and transactions. The Content elements of the online customer experience include two categories: Aesthetics and Marketing mix. The aesthetics elements are designed to communicate the atmosphere of the website that would be attractive for the customers. Finally, the marketing mix elements involve, according to the author, the 4 P’s of the marketing mix plus the fulfillment element, which is particularly important in online retail. In general, the paper provides a good summary of literature on online consumer behaviour, however does not present empirical support for the validity of the proposed classification. Furthermore, it does not provide information on the relative importance of the identified online experience elements on customer behaviour.

FUNCTIONALITY FACTORS		PSYCHOLOGICAL FACTORS	CONTENT FACTORS	
Usability	Interactivity	Trust	Aesthetics	Marketing mix
Convenience	Customer service/after sales	Transaction security	Design	Communication
Site navigation	Interaction with company personnel	Customer data misuse	Presentation quality	Product
Information architecture	Customization	Customer data safety	Design elements	Fulfillment
Ordering/payment process	Network effects	Uncertainty reducing elements	Style/atmosphere	Price
Search facilities and process		Guarantees/return policies		Promotion
Site speed				Characteristics
Findability/accessibility				

Figure 6. Main building blocks of Web experience and their sub-categories.

Source: Constantinides (2004), p. 114

3.7 Summary

To sum up, with the aim of aiding the development of an improved measure of online retail quality, the above literature review provided an insight into the traditional measures of retail quality followed by an overview of the components of customer experience as explored in previous research. As it has been observed, the traditional measures of retail quality tend to focus on limited aspects of customers' interaction with the retailer, concentrating mainly on the functional attributes of the shopping process. Looking at retail quality from a customer experience point of view, however, seems to include a broader range of dimensions of the shopping process that are evaluated by the consumers and are likely to have an effect on consecutive consumer behaviour, such as satisfaction, attitudes, repeated purchase and loyalty. As it can be seen from the reviewed literature, there is a need to develop a measure that will encompass a richer conceptualization of customer experience and will include not only the cognitive evaluations (that is functional values such as usability and fulfillment), but will also incorporate the social (relational) and physical components (aesthetics) of customer's online retail experience. In order to contribute to the forthcoming research, the present literature review explored the range of components of customer online experience that are incorporated into an adapted measure in the following section.

4 Development of the conceptual model

The above literature review has identified additional elements of online retail quality related to the customer's experience when shopping on the Internet beyond the factors assessed by the most established measures such as E-S-QUAL, E-Rec-QUAL, and Holloway and Beatty's (2008) online quality measure. In the present section the components of online customer experience are reviewed in a combination with the traditional models of online retail quality to develop an improved online retail quality measure that will be further used for empirical testing to answer the set research question and assess how the evaluation of online experience affects customer satisfaction and loyalty intentions.

Thus a review of literature has revealed the following components of retail quality as recurring both in traditional measures as well as in measures of online customer experience: Website design/Efficiency; Fulfillment/Reliability; Security/Trust; and Customer service. The components of online retail quality that have not been considered by online service quality measures, but have been mentioned in previous studies of online customer experience include: Interactivity/Sociability, Aesthetics, Customization, Product/Price, and Hedonic attributes. By combining the two categories of components of online retail quality, a theoretical construct of online experience quality consisting of 10 dimensions has been developed for further research purposes.

Table 1. Dimensions of online customer experience in cross-reference with previous research.

Consideration factors	Previous research reference
Usability	
- Convenient to use website	Parasuraman, et. al. (2005)
- Easy to find what is needed on the website	Holloway and Beatty (2008)
- Easy and quick transaction process	Nambisan and Watt (2011)
- Easy navigation through the website	Constantinides (2004)
- Well structured information on the website	Rose <i>et al.</i> (2012)
Customer service/After sales	
- Provision of customer support services	Lemke <i>et al.</i> (2010)
- Effort to solve problems in case if they occur	Verhoef <i>et al.</i> (2009)
- Prompt reaction to problems occurred on the website	Parasuraman, et. al. (2005)
- Good return/exchange policy	Holloway and Beatty (2008)
- Compensation to customers in case if problems occur	Nambisan and Watt (2011)
	Constantinides (2004)
	Rose <i>et al.</i> (2012)
Interaction with the company	
- Provision of efficient ways to get in touch with the company on the website	Parasuraman, et. al. (2005)
	Constantinides (2004)
- Quick response to customer enquiries	Rose <i>et al.</i> (2012)

Customization

- Opportunity to customize shopping pages according to customer preferences
Constantinides (2004)
Rose *et al.* (2012)
- Availability of personal customer pages that make one feel recognized as an individual customer
- Storing of customer preferences and offering products or services based on those preferences

Network effects

- Opportunity to share information about and experience with the products with others using social networks such as Facebook or Twitter
Nambisan and Watt (2010)
Rose *et al.* (2012)
- Opportunity to connect with other customers interested in a product via a blog or a community
Constantinides (2004)
- Opportunity to read reviews of the product from other customers
Lemke *et al.* (2010)
Verhoef *et al.* (2009)
Gentile *et al.* (2007)

Trust

- Protection of credit card and personal information
Parasuraman, et. al. (2005)
- Safety during transactions process
Holloway and Beatty (2008)
Nambisan and Watt (2011)
Constantinides (2004)
Rose *et al.* (2012)

Product/Price

- Good product choice/variety on the website
Gentile *et al.* (2007)
- Availability of ordered products in stock
Lemke *et al.* (2010)
- Competitive product prices
Verhoef *et al.* (2009)
- Provision of promotions and discounts
Constantinides, (2004)
Rose *et al.* (2012)

Fulfillment/Reliability

- Availability of products offered on the website in stock
Parasuraman, et. al. (2005)
- Availability of ordered products in stock
Holloway and Beatty (2008)
- Orders delivered in the promised time periods
Nambisan and Watt (2011)
- Products correspond well to the descriptions provided on the website
Constantinides (2004)
Rose *et al.* (2012)

Communication

- The website provided enough information for me to make an informed purchase decision
Constantinides (2004)
Lemke *et al.* (2010)

Aesthetics

- Visually appealing website
Nambisan and Watt (2010)
 - Fun to shop at the website
Rose *et al.* (2012)
 - Professional appearance of the website
Constantinides (2004)
 - Availability of interactive features
Lemke *et al.* (2010)
Verhoef *et al.* (2009)
Gentile *et al.* (2007)
-

5 Methodology

Once the relevant literature had been reviewed and opportunities for research have been identified, it was necessary to develop a methodology that would guide the research in the most efficient way. The following section provides a detailed outline of the methodology employed for the present study that was constructed by taking into consideration the set research objectives and observations from relevant literature.

5.1 Research philosophy and research purpose

The research philosophy is a fundamental aspect of the research design that affects the way in which the researcher views the world and underpins the research strategy and methods chosen as part of the research strategy (Saunders *et al.*, 2009). There is an ongoing debate as to which philosophical stance should be taken when it comes to research in social science, ranging between positivism on one side of the extreme and interpretivism on the other (Smith *et al.*, 1991). In the positivism philosophy the emphasis is placed on quantifiable observations that are subjected to statistical analysis, while in interpretivism qualitative observations are employed to make sense of the social world as humans through reflection and intuition (Saunders *et al.*, 2009).

In the present study the understanding of customer experience was carried out through the philosophical position of critical realism that falls between the two identified extremes. Realism is similar to positivism in the way that realism also assumes a scientific approach to the development of knowledge. Realism considers that there is only one reality, but there are several perceptions of that reality. Specifically in realism the world has three domains of reality: real domain, the actual domain and the empirical domain (Bhaskar, 1978 in Perry *et al.*, 1999). The real domain is the underlying reality that consists of processes and mechanisms that generate events, which exist independently and tend to produce patterns of observable events under contingent conditions. In the actual domain patterns of events occur, despite of being observed or not. The empirical domain is the observable reality where experience can be obtained by direct observation of the events (Perry *et al.*, 1999). Realism is concerned with identifying the structures and mechanisms that lie beneath events and experiences (Tsoukas, 1989 in Perry *et al.*, 1999).

Much of business and management research is associated with the epistemology of critical realism, implying that comprehension of the social world lies in the understanding of the “social structures that have given rise to the phenomena that we are trying to understand”

(Saunders *et al.*, 2009, p. 115). As Klaus (2010) noted, the mechanisms of customer experience cannot be discovered directly. However, it is possible to measure the observable events caused by the underlying mechanisms of customer experience in order to understand these mechanisms. Therefore, in the present research the outcomes of customer experience such as customer satisfaction and loyalty intentions were observed in order to understand how customer experience works to change consumer shopping behaviour.

It is also very important to be clear about the purpose of the research at the early stages of the research process. The purpose of the present study can be described as descripto-explanatory as defined by Saunders *et al.* (2009, p. 140). Specifically, descripto-explanatory research involves a combination of descriptive and explanatory research, whereby an observation and description of a phenomena is used as a basis for further explanatory research to establish casual relationships between variables (Saunders *et al.*, 2009).

5.2 Research approach

Choosing a research approach in a study is an essential decision that affects consequent development of the methodology. The research approach employed defines how the relationship between theory and practice is viewed within the framework the research (Bryman and Bell, 2007). The nature of the research question posed for the present study was used as the main criteria for the choice of a research approach. In cases when a research question implies a search to explain casual relationship between variables, such as online customer experience and customer satisfaction and loyalty as in the context of the present study, a deductive approach is most suitable approach to be used (Saunders *et al.*, 2009). In a deductive research approach the theory guides and influences the collection and analysis of data. More specifically, in a deductive approach previous knowledge and theoretical considerations in a domain are applied to develop hypothesis (hypotheses) and further subject them to empirical testing (Bryman and Bell, 2007). A deductive research approach provides a structured methodology that ensures higher reliability of research findings (Saunders *et al.*, 2009). As it has been observed during the review of literature, consumer behaviour and components of service quality in online context have been previously examined to a fair extent, thus creating a solid theoretical background in the area. The concept of customer experience and online customer experience as part of the service quality has also been examined, however, more as a theoretical constructs, thus posing a need for an empirical assessment of the construct and its effect on consumer

behaviour. Therefore, the available theoretical background related to online customer experience allowed to devise a theoretical construct for further testing.

Consistent with deductive approach to research, the present study progressed in the following way:

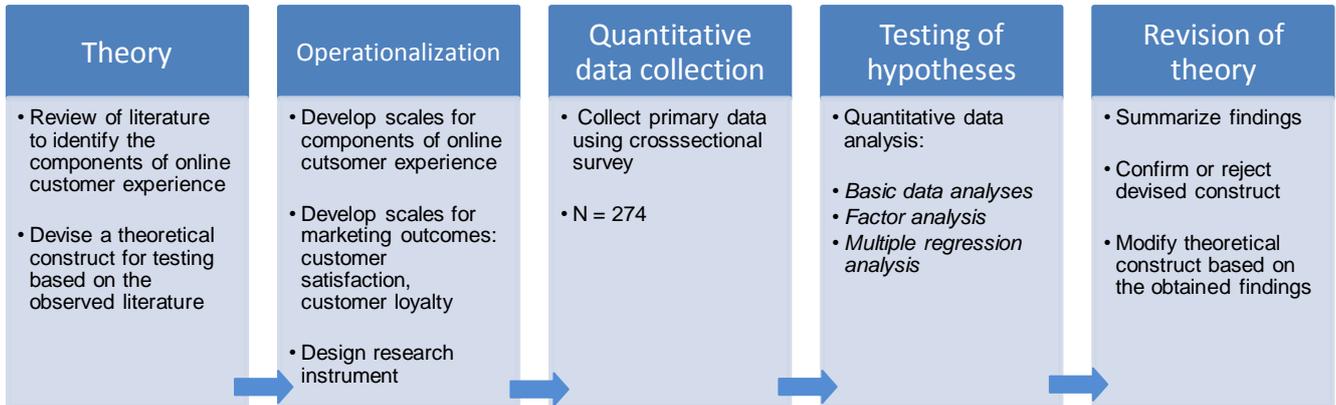


Figure 7. Visual diagram of the research process. Adapted from Saunders *et al.* (2009), p. 125

As it can be seen, the study progressed in five stages. During the first stage, a critical review of literature was carried out in order to identify existing theories related to the construct of service quality and customer experience in online and offline context. The rationale for a review of literature was to identify the components of online customer experience and possible consequences of online experience in terms of consumer behaviour. In the following stage the identified concepts of online customer experience and consumer behaviour were operationalized in order to enable quantitative measurement of the concept: scales were devised and research instrument was developed. By developing an instrument through a preliminary exploration of previous theory in the field, rather than logically devising variables, the content validity of the measure was greatly enhanced (Wilkins and Huisman, 2011). The method of preliminary exploration of previous literature to identify variables for consequent quantitative testing was widely employed in previous studies on consumer behaviour, and customer experiences in particular. In the further stage a survey was carried out in order to collect quantitative data. Once the data has been collected, statistical analyses were employed in order to test the original theoretical construct. Based on the results of the statistical analyses the original theoretical construct was assessed. In the final section conclusions were drawn and implications of the

obtained findings were compared to the original theory. The stages of the carried out research are described in detail in the sections that follow.

However, prior to continuing to the detailed description of the employed methodology, it is important to mention that in the design of the research it is necessary to be aware of the limitations of the selected methodology and try to develop measures to overcome or compensate for those limitations. The main drawback of the use of deductive approach to research in order to connect theory to practice is that the use of deductive approach limits the possibility to discover new ideas beyond the relationships predefined at the initial stages of the research (May, 2001). To reduce the effect of this drawback, the employed study involved an in-depth review of previous literature to gain awareness of the variety of theories in the field and have a broad perspective when making initial assumptions for further testing. The other criticism of the approach is that the presuppositions held by the researcher after reviewing relevant theories tend to affect the consequent research process. This may lead to designing a further methodology in a way that might restrict alternative outcomes and force the confirmation of predefined theories (*ibid.*). In order to overcome this limitation it is critical to carry out extensive piloting of the research instrument, where it can be evaluated by impartial participants for possible signs of subjectivity and bias.

5.3 Research strategy

The research strategy defines a framework for collection and analysis of data at any stage of the study (Bryman and Bell, 2007). From the array of alternative strategies, it was important to select a strategy that would best answer the set research question and satisfy research objectives in the most efficient way, that is, by enhancing the value of information obtained and reducing the cost of obtaining it (Malhotra and Birks, 2003). In order to fulfill these goals a cross-sectional, or survey research strategy was dictated as the most suitable strategy to use.

The survey research strategy is commonly associated with deductive approach and is generally employed to answer “who”, “what”, “where”, “how much” and “how many” research questions (Saunders *et al.*, 2009), thus fitting the approach used for the present study and the research question posed. Further, the survey research strategy is regarded to be highly appropriate for descriptive and explanatory studies such as the study under consideration (*ibid.*). A set of other considerations dictated the choice of a survey strategy as the most suitable option. Specifically, via a survey it was possible to collect large

amount of quantitative data, suitable for statistical analysis and identification of possible relationships between variables, such as the relationship between components of online customer experience and customer satisfaction and loyalty, and possible development of a model for these relationships. Secondly, the use of survey allowed obtaining standardized data to enable the required comparison of the relative importance of various components of online customer experience in creating customer satisfaction and loyalty intentions (Saunders *et al.*, 2009). Finally, the survey design suited best the time-costs constraints for the particular project (*ibid.*).

In the choice of a suitable methodology there is often a tradeoff between the various research methods, where the most suitable method needs to be chosen to meet the set research objectives. However, while a method can be most suitable for the certain research aim, it does not eliminate the weaknesses that are associated with the chosen method. As such, the weakness of the survey research strategy is that it limits the possibility to gain a deeper understanding of the processes behind people's values or behaviours (May, 2001). Specifically, by collecting structured quantitative data in the present study it was difficult to explore why different elements of online customer experience lead to a varying degree of customer satisfaction or loyalty. An associated criticism is that data collected using survey research tends to be less wide-ranging compared to those collected using other research strategies (Saunders *et al.*, 2009). Due to the variety of people's attitudes and meanings assigned to different events, it is difficult to fit them into the fixed categories of questionnaires (May, 2001). For these reason it is important that the research is thoroughly grounded into theory, so that it is possible for the researcher to develop an understanding of the context, different perspectives and social processes in the researched area (*ibid.*). In the present study previous theories on service quality and customer experience have been used as a foundation for the carried out empirical examination in order to make justified and reliable assumptions and inferences. Reference to preceding theory in the area has also been made during the analysis and interpretation of the obtained empirical findings.

It is also important to consider that there is a difference between respondents' attitudes measured using survey research and the actual behaviour of the respondents. The problem of the relationship between attitudes and actions has often been raised in methodological literature, where it has been asserted that accurate evaluation of social attitudes should be derived from the study of people in actual social situations (Lapierre, 1934 in May, 2009). Thus, evaluation of customers' loyalty, such as intentions to make a return purchase with an online retailer, in the context of the present study may not necessarily express the actual

consumer behaviour. A final criticism of survey research is that it is very demanding in terms of the sampling method that needs to be used in order to ensure valid and representative findings (Saunders *et al.*, 2009).

5.4 Research instrument

5.4.1 Data collection method

In order to collect the required data, a self-administered structured questionnaire was used as the main research instrument. The use of questionnaire for data collection purposes implies that respondents are asked to reply to the same set of questions in a predefined order, thus, allowing to collect a structured data from a large sample for subsequent quantitative analysis (de Vaus, 2006 in Saunders *et al.*, 2009). In a self-administered questionnaire the questions are answered by the respondent with minimal interference of the interviewer. A questionnaire is one of the most common data collection techniques employed within the survey research strategy (Saunders *et al.*, 2009). The rationale for employing a self-administered questionnaire for the present research was consideration of the following factors:

- A structured questionnaire provided data necessary for analysis according to the set research objectives and deductive research approach employed;
- The use of structured questionnaire was well suited for large sample employed;
- Self-administered questionnaires were more desirable for the type of questions that were included in the instrument (Saunders *et al.*, 2009). Specifically, the extensive list of customer experience evaluation questions designed for the questionnaire was more comprehensible and easy to follow in a self-administered questionnaire. Plus, it provided more time for respondents' deliberation.
- The use of self-administered questionnaires reduced the interviewer effects that may have caused social-desirability bias in responses to questions (Bryman and Bell, 2007).
- In comparison with other methods, self-administered questionnaires are relatively inexpensive to use for research purposes;
- As a final point, the use of self-administered questionnaire was entirely suitable for the intended sample, since the sample included educated and computer-literate audience.

However, along with the several advantages of self-administered questionnaires the method is also prone to a number of limitations that have been taken into consideration during the process of the present research. Among the drawbacks of self-administered questionnaires is the inability of the researcher to prompt in case if the respondent is having difficulties understanding and answering the questions (Bryman and Bell, 2009). It was therefore important during the development of the questionnaire for the present study to state the questions in a clear and unambiguous way. Clear and detailed instructions were also provided in order to assist the respondents in understanding the questions and completing the questionnaire without the researcher's interference.

Another limitation associated with the use of self-administered questionnaires relates to how respondents interpret the questions in the research instrument. When using self-administered questionnaires to collect data there is no participatory dialogue involved, as a result, there is no guarantee that respondents will interpret the questions in a way that was intended by the researcher (May, 2001). In case of the present study this concern may be related to how respondents evaluate the customer experience attributes, as well as the level of customer satisfaction and loyalty intentions. In order to compensate for this limitation the present research employed multiple-item scales to derive a composite measure of customer satisfaction and loyalty intentions. In addition, extensive pilot work was carried out with the questionnaire, where questions and statements in the questions were evaluated in order to eliminate any ambiguity.

Further, questionnaires are limited in the number of questions that can be asked, especially if the questions are not salient to the respondents, otherwise, there is a risk of making the questionnaire boring and laborious, causing lower response rates (Bryman and Bell, 2009). Thus, it was important during the present study to select only those questions that were specifically necessary to answer the set research question to be included in the research instrument. In order to avoid making the questionnaire bulky and laborious, questions with complex structures were also avoided. Another limitation of the method is that because there is a lack of supervision and prompting when a self-administered questionnaire is filled out, there is a greater risk that respondents will skip questions, creating a problem of missing data. The final limitation of self-administered questionnaires is the low response rate, which, however, was compensated in the present study by distributing an extra number of questionnaires than the required sample minimum and sending follow-up invitations to participate in the online questionnaires. (*ibid.*)

5.4.2 Development of the questionnaire

The questionnaire was designed with the set research question and objectives in mind. The main purpose of the questionnaire was to elicit data that could be further used to assess how the respondents' evaluation of online customer experience affected their level of satisfaction and loyalty intentions in relation to the online retailer. The further aim of the questionnaire was to collect some general demographic characteristics of online customers and their online shopping behaviour. Thus, the main investigative questions that needed to be answered included the following:

Investigative questions	Variables required	Detail in which data measured
How can the sample be characterized according to demographics? <i>(attributes)</i>	Sex	Male/Female
	Age	Age in years
	Family status	Living alone /Living with a partner/ Living with parent(s)/Living with child(ren)
	Monthly income	From 0 to 20 000 SEK in 4 year bands
How can the sample be characterized according to online shopping behaviour? <i>(behaviour)</i>	Online purchasing frequency	Several times a month / Once a month / Once every other month / Once a year
	Products purchased online	A list of 13 product categories
How do respondents evaluate their online experience? <i>(opinion)</i>	Evaluation of online customer experience based on the identified 32 items	Level of customers' agreement with a statement from "Strongly disagree" to "strongly agree" in 6 steps
Does customer online experience affect customers' satisfaction and loyalty intentions? <i>(opinion)</i>	Customers' level of satisfaction and loyalty intentions from the online experience	Level of customers' agreement with a statement from "Strongly disagree" to "strongly agree" in 6 steps

Table 2. Data requirements table. Adapted from Saunders et al. (2010)

With the set investigative questions in mind the first section of the questionnaire included question about the respondents' characteristics, namely sex, age, family status and monthly income, followed by two questions regarding their frequency of online shopping and the type of product purchased online.

In the main section of the questionnaire respondents were asked to evaluate one of their previous online shopping experiences. In order to improve accuracy of recall, respondents were asked to recall their one most recent online shopping. Respondents were asked to evaluate the experience by expressing their level of agreement in relation to 32 statements.

The 32 statements included in this question were derived from the preceding review of literature (See "Development of conceptual model"). In further data analysis these experience factors were treated as independent variables affecting customers' satisfaction and loyalty intentions.

A Likert scale was used to measure respondents' evaluation of online shopping experience. Respondents stated their level of agreement with a statement on a scale from "Strongly disagree" to "Strongly agree". In order to operate necessary statistical analysis techniques, metric data from the variables were obtained by placing the measures on a 6-point scale:

- 1 = strongly disagree
- 2 = disagree
- 3 = slightly disagree
- 4 = slightly agree
- 5 = agree
- 6 = strongly agree

A six-point scale was used to prevent respondents from selecting a neutral middle position which allowed generating sufficient variance among respondents to enable consequent statistical analysis. Multiple-item scales were used in this section of the questionnaire, as they allowed to reduce the standard error and the size of the required sample (Ryan, Buzasa and Ramaswamy, 1995) as well as measure constructs with a greater validity (Hayes, 1998). A "Not applicable" option was provided for each of the statements in case where respondents have not dealt with a certain experience during their online purchasing.

In the final section of the questionnaire customers' satisfaction level and loyalty intentions were assessed in terms of the recalled online shopping experience. In order to measure customer satisfaction and loyalty intentions the study employed pre-designed scales, validity of which has already been established in previous researches in the area. The main reasons for using pre-designed scales were to ensure a higher level of validity of measures and to avoid re-inventing scales in the area that has been extensively examined before and where relevant scales have been designed and confirmed using numerous reliable research findings. For the same reasons pre-existing scales were used to measure marketing outcomes of online customer experience in a number of previous studies, including the study by Wolfinbarger and Gilly (2003).

Specifically, to measure customer satisfaction the study employed a scale developed and confirmed by Oliver (1980). The scale consisted of five statements that in a different way

expressed customers' satisfaction with a shopping decision. The statements were adapted to reflect customers' decision to shop with an online retailer. The statements included in the scale were:

- I was satisfied with my decision to shop with this online retailer
- My choice to shop with this online retailer was not a wise one
- I think I did the right decision to shop with this online retailer
- I feel bad about my decision to shop with this online retailer
- If I had to do it all over again, I would not shop with this online retailer

To assess customers' loyalty a scale developed by Zeithaml *et al.* (1996) consisting of five items was employed. The items on the scale were also adapted to the context of online shopping experience. The items included in the loyalty scale were:

- I will do more business with this online retailer in the next few years
- I encourage my friends and relatives to shop at this online retailer
- I say positive things about this online retailer to other people
- I would recommend this online retailer to someone who seeks my advice about the similar products/services
- I will consider this online retailer as my first choice to shop online for similar products/services

In the questionnaire respondents were asked to state their agreement with the abovementioned statements on a six-point scale from "Strongly disagree" to "Strongly agree» as in the previous question.

Finally, two filter questions were added at the beginning of the questionnaire in order to make sure that cases outside the defined sample were not included in the data set. Specifically, respondents were asked to indicate if they were current students at a university in Sweden and whether they have bought something online during the past year. The questionnaire ended in case if respondents replied "No" to either of the questions.

The questionnaire employed in the study can be found in Appendix 1 or accessed online at <http://kwiksurveys.com/s.asp?sid=g688um9jamlr4xj146227>.

5.5 Sample design

In order to define the population within the framework of the present research, reference has been made to previous studies in the area, some general patterns of online consumer behaviour in Sweden, plus consideration has been given to the time and cost constraints of the given research. As a result of these considerations the study employed a sample of university students in Sweden. As it appeared from review of previous literature, student

population has been extensively used to study online consumer behaviour and consumer perception of online service quality in particular. It has been noted in several researches that student population is specifically relevant for the study of online commerce, specifically Lim and Dubinsky (2005, p. 825) stated that student population is particularly interesting for online retailers given to their significant presence in the electronic environment. This observation has also been supported by inspection of online shopper profiles in Sweden. In particular, from a report based on a national sample it has been found that in Sweden the largest number of purchases online is carried out by people aged 15 to 29 (PostNord, 2011). While the employed sample of university students can be assumed as somewhat more upscale and educated than the general online consumer population, however, research shows that online shoppers are more likely among the higher socioeconomic groups (Wolfenbarger and Gilly, 2003).

In order to collect data from the target population non-probability convenience sampling was employed mainly due to the time and access constraints. However, it has been made sure that students from different levels and areas of study have been included in the sample to ensure a better representation. The sample size has been determined by taking into consideration the requirements for carrying out relevant statistical analyses. Specifically, in order to obtain significant results using exploratory Principal Components factor analysis a minimum sample of at least 100 observations is recommended (Hair *et al.*, 2010), therefore 100 observations was determined as the minimal sample size. As a result responses from a total of 274 participants were collected during the study which fully meets the set minimum requirement. A more detailed description of the sample is provided further in the discussion of results.

5.6 Access

The issue of access to sources of data stands as an important question in any study, affecting to a large extent the feasibility and outcomes of the research (Saunders *et al.*, 2007). Within the framework of the present research, access to primary data was also a crucial concern. In order to access the intended participants, two approaches were employed. Firstly, a portion of the questionnaires was distributed electronically via the internet. Initial invitations to participate were sent to students via university e-mail with a link to the electronic questionnaire with a single follow-up e-mail in a week after the initial invitation. A specialized tool for online surveys was employed to administer the questionnaire which has proved to be highly advantageous. The tool provided a range of

convenient features, such as interactive design utility and possibility to easily export results directly to SPSS. The tool allowed incorporating question skipping patterns to direct respondents to a relevant question based on their response (for example ending the questionnaire in case if responded “No” to the filter question about a recent online purchase and controlling that only students currently enrolled at a Swedish university participated in the survey). In addition, self-administered questionnaires mediated online allowed collecting large amount of data in an inexpensive and less time-consuming manner (Saunders *et al.*, 2007). Secondly, questionnaires were administered to students on the premises of Lund University. In order to gain access to the respondents, academic staff of the university was contacted and requested for assistance (see Appendix 2). Survey sessions were carried out among groups of students prior to or after a lecture, where sufficient time was given to the respondents for a careful consideration of all the questions in the survey.

Specific attention has been paid during the process of data collection to ensure ethical conduct of the research. First of all, voluntary nature of participation was sustained: invitation to participate was sent only once via e-mail with a single follow-up reminder; during the survey sessions on the premises of Lund university respondents were informed of the voluntary nature of participation and were not pressured to take part in the study. No data was collected without the informed consent of the participants. It was insured that participants were informed of the nature of the research prior to filling out the questionnaire. Finally, anonymity of participants was ensured.

5.7 Data analysis

Collected data was subjected to statistical analysis using IBM SPSS Statistics version 20. In order to meet the set research objectives, exploration and analysis of data was carried out in three stages. First, basic data analyses, including frequencies and percentages, were employed to characterize the sample and observe the general trends in online consumer behaviour. Further an exploratory Principal Components factor analysis was conducted to identify underlying dimensions of online customer experience among the initial set of 32 variables. The identified factors were subsequently employed in multivariate analyses. Specifically, multiple regression analysis was employed in order to test the relationship between customers’ evaluation of dimensions of online experience and customer satisfaction and loyalty intentions.

5.8 Reliability and validity

One of the foremost requirements for the present research design was to ensure credible findings. There are two aspects of the research design that need to be particularly considered to ensure research credibility, that is, reliability and validity. The following sections describe how research credibility of the present study was ensured in terms of these two concepts.

5.8.1 Research reliability

Reliability of the research refers to the degree to which the employed data collection techniques and analysis procedures produce consistent findings (Saunders *et al.*, 2009). More specifically, reliability reflects (1) whether the employed measures can yield the same results on different occasions; (2) whether similar observations can be obtained by different researchers; and (3) if there is transparency in the way the raw data was treated (*ibid.*).

Methodological literature lists four types of threats to research reliability (Robson, 2002 in Saunders *et al.*, 2010). One of the threats is subject or participant error. *Participant error* occurs when participants produce responses that do not fully reflect their true behaviour or feelings, because of the conditions in which data was collected (Mitchell and Jolley, 2012). In other words, depending on the conditions of data collection, such as a busy day or a distracting environment, participants may provide different responses compared to responses given in a calmer environment. Several measures have been taken to minimize participant error in the present study. Firstly, most of the responses were collected during lectures, where respondents were able to fill out the questionnaire in a quiet environment without distractions but at the same time when being in an alert state. Secondly, since there was no control of the conditions in which the online questionnaires were filled out, an attempt was made to balance out participant error by collecting a large sample of responses. Additionally, to balance out participant error, the research instrument incorporated multiple-item scales to measure the necessary constructs of customer experience, satisfaction and loyalty. (*ibid*)

The second threat to reliability is subject or participant bias. *Participant bias* occurs in cases when participants alter their responses in attempt to provide socially desired answers. To avoid socially desired behaviour and participant bias in the discussed research, respondents were reassured that their answers were completely anonymous. *Observer bias*,

on the other hand, occurs when the researcher's subjectivity prevents from making objective observations (Mitchell and Jolley, 2012). Unfortunately it was difficult to fully control observer bias in the present study because only one researcher carried out the study, however, potential effect of observer bias has been acknowledged by the researcher and care has been taken to avoid subjectivity from affecting researcher's judgment. Finally, *observer error* occurs when unsystematic errors are made when recording observations. Minimal observer error in the present study was ensured by employing a standardized structured research instrument and carrying out careful coding and transcription of the raw data.

Finally, since it is important for a research, and especially quantitative research, to be replicable to ensure reliability, special measures have been taken to ensure *replicability* of the study in question. Specifically, all procedures of the research, including sampling method, design of the research instrument, administration of the research instrument and collection of data, and consequent data analysis have been carefully described and documented. Based on these detailed descriptions the present study can be easily replicated if desired and the findings of the study can be validated.

5.8.2 Research validity

Research validity reflects whether the obtained findings are actually about what they appear to be about and mainly concerns the accuracy of the collected data (Saunders *et al.*, 2009). *Internal validity* refers to the ability of the research instrument to measure what it intends to measure (*ibid.*). To ensure internal validity in the present study, the questionnaire was piloted among 10 participants demographically similar to participants of the survey. As a result of the piloting one question was excluded and a number of questions were reformulated.

In order to ensure *measurement validity*, attention has been paid to the development of the theoretical construct used as a basis for the data collection. Specifically, cross-reference with previous literature has been made prior to including a component into the initial model. Only those items that re-occurred in several previous studies were included in the model. Further the dimensions obtained as a result of factor loadings of the items included in the initial model were also subjected to reliability tests. Specifically, Cronbach's values were used to assess the reliability of the identified dimensions and it was controlled that the obtained are above the accepted minimum (see Data Analysis). In order to ensure the

validity of the measures of customer satisfaction and loyalty intentions, previously established scales were employed, whose strong validity has already been confirmed by previous findings, but were also controlled using Cronbach's values with the data obtained.

Generalisability, also referred to as *external validity*, concerns whether the obtained research findings can be equally applicable to other research settings, that is, whether they are generalisable to a broader research context (May, 2001). Given that the present study employed non-probability sampling technique, the researcher does not claim generalization beyond the sample.

6 Results

The following section presents results from statistical analysis performed using primary data obtained from the survey. First, results from basic data analyses are presented beginning with a summary of respondents' profile, followed by results from exploratory Principal Components factor analysis.

6.1 Sample characteristics

A total of 302 respondents participated in the survey. After filtering and elimination of incomplete responses, a total of 274 usable responses were retained and subjected to statistical analysis. A summary profile of the respondents is provided in Table 3. As it can be seen from the table, the collected sample was rather overrepresented by female respondents over male respondents. However, by looking at general statistics of online shopping from a national sample in Sweden it was observed that generally women are more frequent online shoppers than men (PostNord, 2011), thus making the current sample a rather reasonable representation. The majority of the respondents in the sample, namely 47%, were aged 21-23, with almost equal proportions of respondents in the age groups of 18 to 20 and 24 to 26. 7% of respondents were aged 27 to 29, while 4% of the surveyed sample was over the age of 30. The mean age in the sample was 23 years. Although the obtained sample is not representative of the entire population of online shoppers in Sweden, however the given sample is a good representation of young online consumers who were of particular interest in the context of the present study due to their active presence in the online market. In terms of family status, most of the respondents identified themselves as living alone. 31% in the sample were living with a partner and 20% with parents. 4% of the sample indicated having children. The most common level of income indicated by 53% of the respondents in the sample was between 8000 and 11999 SEK a month after taxes. Almost a quarter of respondents had an income of less than 3999 SEK and only 2% had an income above 16000 SEK.

Demographic		Percent of sample
Sex	Male	30 %
	Female	70 %
Age	18-20	20 %
	21-23	47 %
	24-26	22 %
	27-29	7 %
	30-32	1 %
	Over 33	3 %
Family status	Living alone	45 %
	Living with a partner	31 %
	Living with parents	20 %
	Living with children	4 %
Income	0 - 3 999 SEK	23 %
	4 000 - 7 999 SEK	16 %
	8 000 - 11 999 SEK	53 %
	12 000 - 15 999 SEK	6 %
	16 000 - 19 999 SEK	1 %
	20 000+ SEK	1 %

Table 3. Sample profile

6.2 Online shopping behaviour

Online shopping behaviour of the surveyed sample was examined in terms of frequency of online purchases and the type of products purchased online. With respect to the frequency of online purchases, it has been revealed that the majority of respondents in the observed sample (53%) shop online once every other month. 20% of the sampled respondents shop online once a month, however, only 8% of the respondents shop online more than once a month. As much as 19% of the sample shop online only once a year.

Frequency of online purchases (% of sample)

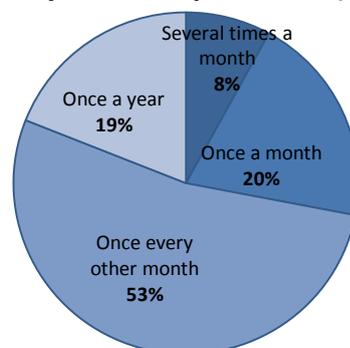


Figure 8. Frequency of online purchases.

The results showed that the most commonly purchased types of products online among the reviewed sample were (1) books; (2) apparel; (3) travel tickets; and (4) sports and leisure items (see Figure 9.). Books were the most recently purchased item among 22% of the respondents. The second most purchased product category was apparel, including clothes, shoes, and accessories. Among the surveyed sample 29% purchased apparel during their most recent online purchase. Travel tickets were bought by 14% of the respondents. The least purchased products categories were hotel bookings, services, such as insurance, car accessories and furniture and home improvement items. None of the respondents have indicated groceries as their most recent purchase online.

When comparing online consumption between male and female students, the study revealed considerable differences in some of the types of products commonly bought online by the two categories of respondents. The categories with the greatest difference in consumption between the male and female respondents were apparel, sport and leisure items, electronics, computer software and cosmetics. Figure 9 represents the differences in the product types bought by male and female respondents in the sample. As it can be seen from the graph, sport and leisure items, electronics, computer software (including games, movies and music) were bought online more by male students; while more female students recently purchased apparel and cosmetics online.

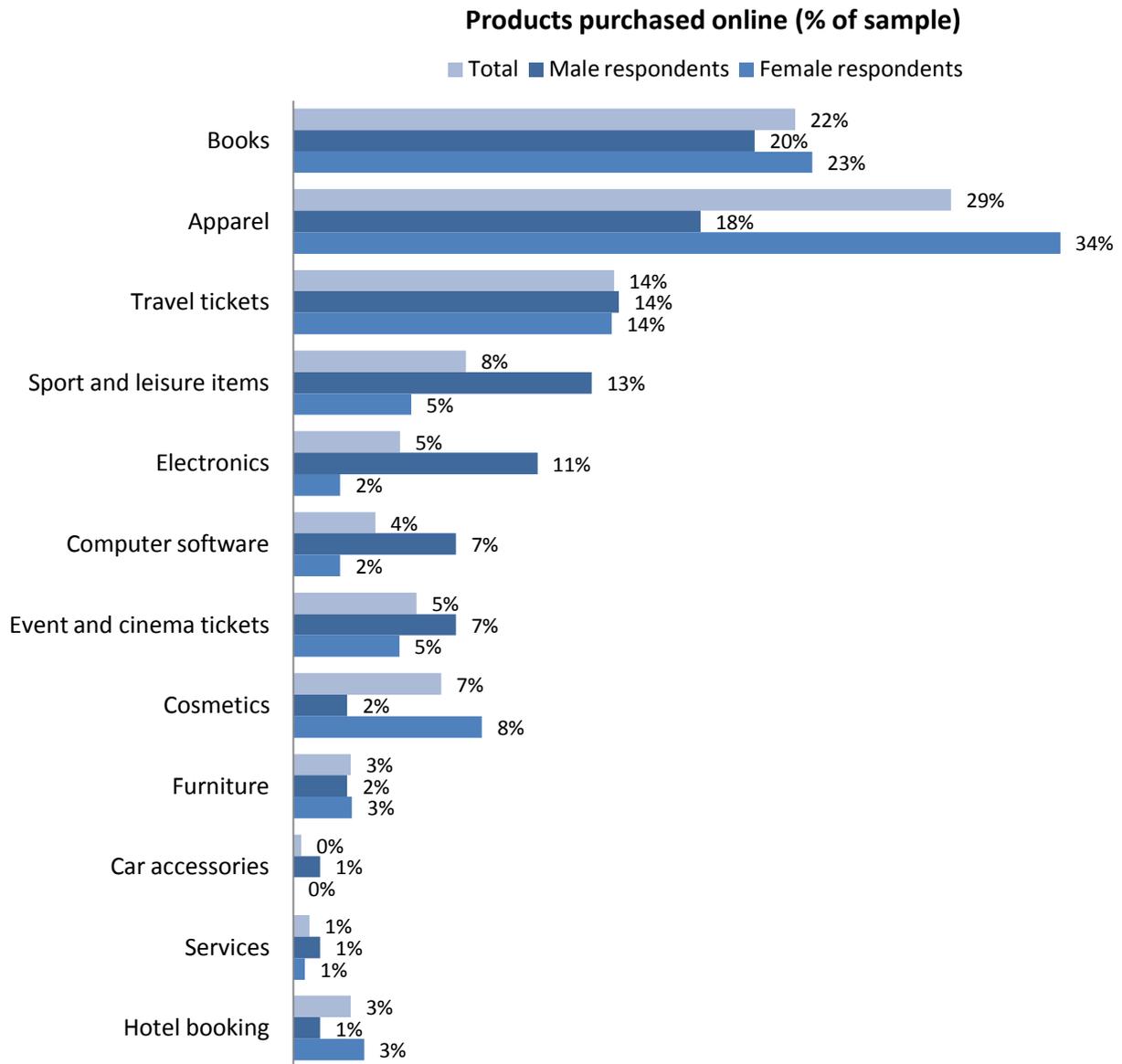


Figure 9. Types of products purchased online

6.3 Factor analysis

As per the set research objectives it was necessary to devise the components of online customer experience. Previous literature has been employed in order to formulate an initial set of attributes of online customer experience, however in order to determine how these attributes were interrelated further statistical analysis, such as factor analysis, was necessary. Factor analysis is designed to define the underlying structure among a large number of variables in the analysis by defining variables that are highly interrelated and grouping them into factors (Hair *et al.*, 2010, p. 94). Factor analysis was also necessary in order to reduce the number of variables for consequent multiple regression analysis needed to test the effect of customer online experience on satisfaction and loyalty. Therefore, in

order to identify the underlying structure among the 32 variables and to reduce the number of variables for consequent analysis, exploratory factor analysis using Principal Components method with Varimax rotation was employed.

Prior to performing the principal components analysis, the suitability of data for factor analysis was assessed. Firstly, the sample size was evaluated. Methodological literature suggests that the recommended minimum sample for a reliable factor analysis is at least 100 observations (Hair *et al.*, 2010). Therefore, the collected sample of 274 observations provided more than an adequate basis for the calculation of the correlations between variables using a factor analysis in the present study. The sample size of 274 observations on 32 variables also allowed an 8:1 ratio of observations to variables, which falls into acceptable limits of minimum of 5:1 ratio specified by Hair *et al.*, (2010). Further, the Kaiser-Meyer-Olkin statistic and Bartlett's test of sphericity were employed to test the appropriateness of the factor model (see Table 5 in Appendix 3). The Kaiser-Meyer-Olkin (KMO) statistic measures the sampling adequacy for factor analysis. Small values of Kaiser-Meyer-Olkin statistic denote that correlations between pairs of variable cannot be explained by other variables, therefore, factor analysis may not be suitable (Malhotra and Birks, 2003). Thus, for satisfactory factor analysis KMO values of at least 0.5 are recommended (*ibid*). For the present analysis the KMO value of 0.816 was obtained, which is significantly large and is considered as meritorious by Hair *et al.*, (2010), demonstrating that that the use of factor analysis on the 32 attributes in question was highly appropriate. Another measure of appropriateness of factor analysis is the Bartlett test of sphericity. The Bartlett's test of Sphericity value is generally considered statistically significant at $p < 0.5$ to carry out appropriate factor analysis (Pallant, 2007). In a test on the obtained data, Bartlett's Test of Sphericity reached statistical significance of $p < .001$, denoting that there was a high enough degree of correlation between variables in the data, once again confirming the appropriateness of factor analysis for the given data sample (See Table 5 in Appendix 3).

After testing the assumptions underlying factor analysis the test proceeded to actual extractions of factors. Specifically, Varimax rotation was used for factor loadings to explore the underlying dimensions of the 32 independent variables. Only factors with eigenvalues greater than 1.0, recommended as significant by Hair *et al.* (2010), were retained. Factor loadings higher than 0.4 were employed as suggested by Hair *et al.*, (2010) for sample sizes greater than 200. Due to a number of cross-loadings encountered which could not be eliminated in a test of different rotation methods, it was determined to delete

three of the initial variables leaving a total of 29 variables. As a result, the Principal Components analysis revealed presence of eight components with eigenvalues exceeding 1. The identified factors were able to explain cumulative variance of 61.4%. It is generally recommended that the extracted factors account for at least 60% of the variance, a condition sufficiently sustained in the present analysis (Malhotra and Birks, 2007). Table 4 summarizes the results of the factors analysis with the identified underlying factors.

The first factor that accounted for the largest variance (24.7%) was labeled “Website usability”, since the six items loaded on that factor related to the various aspects of usability and user-friendliness of the online retailer’s website, including ease of navigation, structure of information provided on the website, visual appeal of the website, the ease of finding what is needed on the website, convenience of the website and ease of the transaction process. The second factor pertained to the networking effects and the role of customization on the website in online shopping experience and was labeled “Networking and customization”. The items on this factor included attributes such as the opportunity to share information about and experience with the products with others using social networks such as Facebook or Twitter; opportunity to connect with other customers interested in a product via a blog or a community; opportunity to customize shopping pages according to customer preferences; storing of customer preferences and offering products or services based on those preferences; and presence of interactive features on the website. This factor accounted for 8,644% of the variance. The third factor was associated with “Personal attention” received by customers during their online shopping experience. The factor included items such as availability of personal customer pages that make one feel recognized as an individual customer, prompt reaction to problems occurred on the website, and compensation to customers in case if problems occur. Factor identified as “Fulfillment” related to the ability of the retailer to keep the promises in terms of services it provides, namely in terms of availability of the promised items in stock, on time delivery and compensation in case if problems occur.

Factor 5 reflected customers’ perception of security during online shopping experience and included items that relate to protection of credit card and personal information, and safety during transactions process. Interestingly the third variable that loaded on the “Security” factor was Professional appearance of the website. As a possible explanation to this could be an assumption that professional appearance of the website is likely to be associated with professionalism of the online retailer in the eyes of the customers and hence encourage higher level of trust in the retailer in terms of security. The 6th factor “Customer support”

related to the ability of the retailer to offer customer support services during customers' online shopping experience. The four items included in this dimension were: provision of efficient ways to get in touch with the company on the website; company effort to solve problems in case if they occur; provision of customer support services; and good return/exchange policy. The 7th factor reflected the economic value gained by the customers during their online shopping experience. The economic value in the present context was expressed through competitive product prices and availability of discounts and promotions. The final factor was labeled "Awareness" and related to the knowledge available to customers during their online shopping experience in order to make an informed purchasing decision. This knowledge could be obtained both from reviews of the product from other customers as well as from provision of adequate information for an informed purchase decision by the retailer. This final factor accounted for 3.37% of variance.

To conclude the factor analysis a test of model fit was carried out to ensure that the used scales were reliable. In the present study, the internal consistency within each of the eight constructs was measured using Cronbach's alpha. The Cronbach's alpha is the most common assessment of internal consistency of items in a scale. The estimated alpha coefficient varies between 1 (denoting perfect internal reliability) and 0 (denoting no internal reliability). The generally acceptable level of reliability is an alpha value of 0.70 or higher, however, slightly lower figures between 0.70 and 0.60 are also accepted for exploratory research (Hair *et al.*, 2010). The results of the reliability test undertaken in the present study are indicated in Table 4. The alpha values varied from 0.802 to 0.623, suggesting that the extracted factors provided a suitable measure of the underlying dimensions which they reflected.

From the observation of the obtained results it was noticed that while some results of the exploratory factor analysis correlated with factors found in previous literature in the area, some of the dimensions identified in the present analysis were different from previous evidence found in the literature. For instance, factors "Website usability", "Fulfillment", "Security" and customer support are comparable with factors found in the studies of Parasuraman, *et al* (2005) and Rose *et al.*, (2007). The factor "Economic value" was found to be related to factor "Price" in the conceptual model of online customer experience developed by Lemke (2010). On the other hand, factors "Networking and customization", "Personal attention" and "Awareness" were relatively novel among the previously developed models of online customer experience.

		Component							
		1	2	3	4	5	6	7	8
Factor 1: Website usability	Easy navigation through the website	,682							
	Well structured information on the website	,656							
	Visually appealing website	,655							
	Easy to find what is needed on the website	,618							
	Convenient to use website	,568							
	Easy and quick transaction process	,535							
Factor 2: Networking and customization	Opportunity to share information about and experience with the products with others using social networks such as Facebook or Twitter		,750						
	Opportunity to connect with other customers interested in a product via a blog or a community		,732						
	Opportunity to customize shopping pages according to customer preferences		,728						
	Storing of customer preferences and offering products or services based on those preferences		,646						
	Presence of interactive features on the website		,423						
Factor 3: Personal attention	Availability of personal customer pages that make one feel recognized as an individual customer			,709					
	Prompt reaction to problems occurred on the website			,667					
	Compensation to customers in case if problems occur			,662					
Factor 4: Fulfillment	Availability of products offered on the website in stock				,803				
	Availability of ordered products in stock				,704				
	Orders delivered in the promised time periods				,634				
	Products correspond well to the descriptions provided on the website				,583				
Factor 5: Security	Protection of credit card and personal information					,837			
	Safety during transactions process					,738			
	Professional appearance of the website					,588			
Factor 6: Customer support	Provision of efficient ways to get in touch with the company on the website						,728		
	Company effort to solve problems in case if they occur						,551		
	Provision of customer support services						,521		
	Good return/exchange policy						,435		
Factor 7: Economic value	Competitive product prices							,729	
	Provision of discounts and promotions							,644	
Factor 8: Customer awareness	Opportunity to read reviews of the product from other customers								,787
	Provision of adequate information for an informed purchase decision								,646
Factors		1	2	3	4	5	6	7	8
Eigenvalue		7,165	2,507	1,728	1,543	1,318	1,259	1,149	1,084
Variance explained (%)		24,707	8,644	6,143	5,321	4,546	4,340	3,962	3,737
Cumulative variance (%)		24,202	33,351	39,494	44,816	49,361	53,702	57,664	61,401
Cronbach's Alpha Reliability Coefficients		,802	,745	,698	,660	,743	,650	,661	,623
Number of items (total = 29)		6	5	3	4	3	4	2	2

Note. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 11 iterations.

Table 4. Rotated factor matrix for dimensions of online customer experience

6.4 Multiple regression analysis

The main research objective in the study was to test how customers' evaluation of components of online experience affects marketing outcomes, namely customer satisfaction and loyalty. In order to meet the objective standard multiple regression analysis was employed. Multiple regression analysis is a statistical technique employed to analyze the relationship between a single dependent variable and several independent variables (Hair *et al.*, 2010). The aim of multiple regression analysis is to use the known values of independent variables to predict the dependent variable (*ibid*). The independent variables subjected to analysis in the present study were the eight components of online customer experience previously extracted through factor analysis. The factors considered were: "Website usability", "Networking and customization", "Personal attention", "Fulfillment", "Security", "Customer support", "Economic value", and "Customer awareness". The dependent variables tested were the composite scales of customer satisfaction and loyalty. Prior to analysis, the reliability of scales was assessed using the basic scale reliability tests. The Cronbach's alpha coefficient was evaluated as the most common indicator of scale consistency. The generally agreed upon limit for Cronbach's alpha is 0.7, while values between 0.7 and 0.6 are also accepted (Hair *et al.*, 2010). In a test on the obtained data both customer satisfaction scale and customer loyalty scale have demonstrated good internal consistency with Cronbach's alpha coefficients reported of 0.794 and 0.855 respectively. In previous studies where the scales were employed a similar strong consistency was found.

After confirming scale reliability the actual multiple regression analysis was run. The following question was formulated to guide the present analysis based on the initial research question: How well does the customers' evaluation of dimensions of online experience predict customer satisfaction and loyalty? Preliminary analyses were conducted in order to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity prior to evaluating the obtained results. In the tests all the independent variables were entered simultaneously. The following conclusions have been made based on the obtained findings.

6.4.1 Evaluation of dimensions of online experience and customer satisfaction

The multiple regression model with eight predictors produced $R^2 = .487$, $F(8, 97) = 11.514$, $p < .001$, indicating that the model was able to predict 48,7% of the variance in customer

satisfaction. Table 6 in Appendix 3 summarizes the results of carried out analysis for customer satisfaction. From the obtained results it was possible to identify that five out of eight dimensions of online experience contributed to the prediction of customer satisfaction. Specifically, Website usability (beta = .392, $p < .001$), Networking and customization (beta = -.151), Fulfillment (beta = .342, $p < .001$), Security (beta = 0.22, $p = .006$), and Customer support (beta = .267, $p = .001$). Based on the observation of Beta coefficients it could be seen that evaluation of Website usability is the strongest predictor of customer satisfaction. Fulfillment is the next strongest predictor of customer satisfaction followed by Customer support and Security. The least contributing dimension is Networking and customization.

6.4.2 Evaluation of dimensions of online experience and customer loyalty

Results of multiple regression analysis with customer loyalty scale as a dependent variable have also revealed a statistically significant model with $R^2 = .426$, $F(8, 97) = 8.991$, $p < .001$, showing that the eight dimensions of customer experience could explain 42,6 % of variance in customers' loyalty intentions (see Table 7 in Appendix 3). However, only two out of eight dimensions were found to be significant contributors to the prediction of customer loyalty intentions. Specifically, Website usability (beta = .405, $p < .001$) and Fulfillment (beta = .359, $p < .001$) contributed to the prediction of customer loyalty intentions.

7 Discussion and implications

The following final section of the report incorporates a reflection on the entire range of findings obtained as a result of the carried out research so as to draw conclusions and devise implications in terms of management of online customer experiences.

7.1 Components of online customer experience

As per the set research objectives one of the aims of the present research was to review existing measures of online retail quality in order to identify the attributes evaluated by consumers during their online shopping process. In order to meet this objective the major models for evaluating online retail quality were observed. It was identified that the main attributes evaluated by consumers during their online shopping process include Website efficiency/Usability, Fulfillment, Privacy, Customer service, and three additional attributes that are associated with service recovery, namely Responsiveness, Compensation and Contact (Parasuraman *et al.*, 2005; Holloway and Beatty, 2008). It has been noted that the existing measures of online retail quality fail to include the evaluation of other aspects of online shopping encounter. In order to identify the broader range of attributes evaluated by consumers during their online shopping process, literature on customer experience was reviewed. Previous research on both customer experience in offline environment and online environment has been observed to gain a broader understanding.

As it has been revealed, a distinction is made in the types of attributes of customer experience. Specifically, some authors separate between concrete attributes and the perceptual attributes of customer experience. The concrete attributes or, in other words, the technical aspects of customer experience act as the antecedents that trigger and influence the higher order perceptual attributes (Klaus, 2010). It is argued in previous studies that these components are perceived by consumers as a unitary experience rather than each individually (Gentile, *et al.*, 2007). The important technical aspects of customer experience include the social environment (including other customers, reference groups, service personnel), the service interface (service person, technology, co-creation/customization), the retail atmosphere (design, scents, temperature, music), the assortment (variety, uniqueness, quality), the price and promotions (loyalty, programs, promotions), customer experiences in alternative channels, and the retail brand (Verhoef *et al.*, 2009; Lemke *et al.*, 2010).

In the online environment, a range of experience components have been identified according to previous studies. Some studies separate online customer experience into two broad categories as cognitive experience and affective experience (Rose *et al*, 2012). Other studies also add a sociability dimension to the entire online customer experience (Nambisan and Watt, 2010). While from a third study that has been reviewed the Marketing mix component can be added to the overall online customer experience that includes attribute of customer experience related to the characteristics of the product, such as the product variety, price of the product and availability of promotions and discounts (Constantinides, 2004).

Overall, by combining the findings from previous studies a conceptual model of online customer experience has been developed for further testing, consisting of 32 items representing 10 dimensions was developed and incorporated into a research instrument. Using the designed research instrument data was collected from a sample of 274 respondents and subjected to statistical analysis. In order to verify the underlying structure among the 32 items exploratory factor analysis using Principal Components method with Varimax rotation was employed. Eight factors with eigenvalues greater than 1 were produced. The obtained factors have demonstrated a slightly different structure than the initial model. Thus, to answer the first part of the two-fold research question, the underlying components of online customer experience were identified in the present research as the following:

1. *Website usability* – a measure of customers' evaluation of the usability of the retailer's website. This measure relates to factors such as the ease of navigation through the website, structure of the information on the website, the visual appeal of the website, the ease with which necessary items can be located on the website, the convenience of the website and, finally, the ease of the transaction process. This measure is associated with customers' functional or pragmatic experience during online shopping and resembles the website usability measures in traditional online service quality measures.
2. *Networking and customization* – this component of online experience relates to how customers evaluate the networking features of the retailers' website, such as features that allow sharing information about and experience with the products with others using social networks such as Facebook or Twitter and the opportunity to connect with other customers interested in a product via a blog or a community. This measure is associated with the sociability experience of the customer during online shopping and ability of the online retailer to create a social environment. The second component of this measure is

customization. Customization is a special feature of online retailing that allows customers to experience an offering tailored specifically for them according to their interests and preferences. During online shopping experience such features as opportunity to customize shopping pages according to customer's preferences, storing of customer preferences and offering products or services based on those preferences and presence of interactive features on the website are evaluated by the customer.

3. *Personal attention* – is a dimension that relates to the level of personal attention received by the customer during the online shopping experience. Three attributes of online retailer's website comprise this dimension: availability of personal customer pages that make one feel recognized as an individual customer; prompt reaction to problems occurred on the website; and compensation to customers in case if problems occur. Interestingly that this component loaded separately from the customer service component, indicating that it is important for customers to receive individual attention and be treated as a recognized customers.

4. *Fulfillment* – is a measure of the extent to which the online retailer is able to keep its promises. Specifically, this dimension refers to the online retailer's ability to deliver products in the specified time period, have the products offered on the website in stock, make sure that the products ordered by the customers are in stock as well as provide the products or service they way they are presented on the website.

5. *Security* – is a measure of customers' perception of security when using the website or disclosing personal information to the retailer. Items loaded on this dimension included evaluation of safety during transactions process and protection of credit card and personal information. Interestingly, professional appearance of the website also loaded in the security dimension of the customer experience. It is possible to assume that professional appearance of the website is translated to higher level trust of the online retailer for the customer.

6. *Customer support* – is a dimension of online experience that relates to the level of customer service and support received by the customers during their online shopping process. This component includes provision of ways to get in touch with the company, the company's effort to solve problems in case if they occur, and good exchange/return policies offered.

7. *Economic value* – is a measure of the economic value gained by the customers during their online shopping experience. The economic value in the present context was expressed through competitive product prices and availability of discounts and promotions.

8. *Customer awareness* – this dimension is related to the knowledge available to customers during their online shopping experience in order to make an informed purchasing decision. This knowledge could be obtained both from reviews of the product from other customers as well as from provision of adequate information for an informed purchase decision by the retailer.

7.2 The effect of online customer experience on customer satisfaction and loyalty intentions

According to the second part of the set research question, the aim of the present study was to examine the effect of customers' evaluation of online customer experience on the corresponding measures of customer satisfaction and loyalty intentions. Previously developed scales of customer satisfaction by Oliver (1980) and loyalty by Zeithaml *et al.* (1996) have been used to measure the outcomes of customers' evaluation of online shopping experience. The previously identified eight components of online customer experience were used as independent variables in multiple regression analysis. The results of the statistical analysis have shown that five out of eight dimensions of online experience contributed to the prediction of customer satisfaction. The strongest predictor of customer satisfaction is Website usability, followed by Fulfillment, Customer support and Security. Results show that with the increase of the performance of the online retailer's website on these dimensions, the level of customer satisfaction increases. However, more networking and customization elements on the website lead to decreasing levels of customer satisfaction. This shows that the functional attributes of the online experience are the primary source of customer satisfaction. The obtained findings can be explained by the following considerations.

Specifically, the nature of the online retail offer is different in comparison to the traditional shopping environment, where the physical interaction of the customer with the product as well as with the retailer is substituted with the use of technology. When looking at shopping motivations of online shoppers much of the previous research suggests that when shopping online consumers strive to obtain utilitarian or functional value (To *et al.*, 2007; Overby and Lee, 2006; Keene, 1999). Online shopping provides consumers round-the-clock service without stops, unlimited by location. By shopping online consumers avoid

troublesome travelling, parking and queues as well as unwanted contact with sales personnel. Given the fact that online retailers are less subject to inventory pressure, it is possible for them to provide a greater product variety for consumers. Online retailers can also provide greater product diversity by being able to stock even very niche-specific products. Finally, it goes without saying that Internet offers the most efficient means for consumers to obtain product-related information as well as information about promotions and special deals. It also provides opportunities for easy comparison between products as well as among retailers.

Driven by these utilitarian motivations online consumers tend to be rational, goal oriented, and purchase products in a deliberate and efficient manner. The functional components of the online customer experience allow the customers to meet their goals in the best way, and therefore they become the most important factors in customers' evaluation of the overall experience and not the sociability or aesthetic attributes, as shown by the present findings. Functional attributes have been found to be a stronger predictor of consumer preferences of online retailers and consumer purchase intentions in a study conducted by Overby and Lee (2006). Similar findings have been obtained by Keeney (1999), To *et al.*, (2007) and in more recent studies by Scarpi (2012). These studies have shown that online shoppers are most likely to be motivated to shop when the website is informative, convenient and time-saving. It also appears that customers appreciate that the online retailer is taking care of them in case of problems which leads to a higher level of satisfaction. Based on their first-hand experiences with the support services offered by the company, customers have the ability to evaluate not only company offerings, but also the service package. From the range of customer support services, the ability of the company to respond to and handle problems stands as an important factor. Literature suggests that satisfaction with the process of problem resolution is more important than initial service attributes in creating customer satisfaction (e.g, Bitner *et al.* 1990).

On practice this means that prior to focusing on improving hedonic attributes of online experience, Internet retailers should first ensure that utilitarian functions are in place. Online retailers should in the first place provide their consumers with means of obtaining comprehensive information about products, carry out a smooth, trouble-free transaction, provide accurate and timely delivery, and ensure adequate customer support throughout the entire buying process.

One of the important original findings of the present study is the identified negative relationship between *Networking and Customization* component of online customer experience and customer satisfaction. As it has been described earlier, Networking and customization component of online experience relates to how customers can connect and communicate with other consumers using social networks and employ special features of online retailing to customize the shopping process according to their interests and preferences. In previous studies Nambisan and Watt (2011) considered the opportunity to customize one's space and networking in the online environment in the context of online product communities, where it has been identified that customization and networking has a positive effect on customer satisfaction. It is argued in their study that the ability to customize one's own space and connect using networks is similar to the way in which customers form their rituals and routines in traditional shopping environment. It is also stated that by identifying with others through networking in a product community customers develop a sense of relationship with the retailer (Nambisan and Watt, 2011).

It is important to note that the research of Nambisan and Watt (2011) was carried out in the context of online product communities, where communication with other customers is one of the main purposes, hence functions for networking can be considered important in that context. In the present research, however, retailer websites were investigated, where the primary purpose for the customers is to carry out a transaction, therefore, functions such as customization and networking may be considered as distracting from the main task.

Wolfenbarger and Gilly (2001) provide support for this argument stating that most online shoppers are goal-directed. Zeithaml *et al.* (2002) similarly suggest that the sociability and entertainment criteria, identified in the studies of general websites such as news and community websites are not relevant in the online purchase context. Thus, the obtained findings align with the above assertion, proving that while sociability and entertainment experience may lead to satisfaction on general websites in online purchase context online retailers need to be careful when incorporating these components to the overall experience as it they may distract the customers from the main goal and serve to reduce satisfaction.

7.2.1 Conclusion

The carried out research provides several contributions to the understanding of online service quality. Specifically, the results of the present research have shown that the dominant online service quality theories such as E-S-QUAL and E-RecSQUAL embrace the most important attributes of online customer experience. In other words, the obtained

findings once again prove that customers' assessment of online service quality in online purchase context is mainly based on the evaluation of the pragmatic attributes of the online retail offering, such as Website usability, Fulfillment, Customer Support and Security.

The next contribution to the understanding of online retail quality is the previously unidentified dimension *Customer awareness*, which reflects the knowledge available to customers during their online shopping experience provided by the company and other customers. Several other studies have considered the provision of information by the company as an important attribute of the online retail service (Constantinides, 2004; Lemke et al., 2010), however the contribution of information provided by other consumers to customer awareness has not been previously observed. In fact, in most of the existing theories on customer experience communication with other customers has been considered as part of the sociability experience (Nambisan and Watt, 2010; Rose et al., 2012; Lemke et al. (2010). However, with the main online shopping activity being considered as goal-oriented towards making a purchase, it is reasonable to believe that customers strive to employ the available functions of the website to achieve this goal. Thus, instead of using the forums and communities for entertainment purposes, online customers use the information contained in these media to gather information to make a purchase decision. By being able to obtain more information on products from a variety of sources, for example from past users and opinion formers, consumers' confidence in making right decisions increases (Demangeot and Broderick, 2007). In practical terms these findings imply that it is essential for online retailers to, first of all, provide consumers with rich information about products that is easy to find and easy to comprehend. This will allow consumers to reduce their cost of search, assist them in making an informative decision and possibly incline to make a purchase with a retailer.

7.3 Practical implications

Based on the above conclusions the following implications for online retailers in terms of creation of customer experience can be outlined:

1. *Website usability/design/navigation.* Online retailers need to focus on creating websites that are easy to navigate, well-organized, provide concise, easy to understand contents as well as providing functionality in terms of time savings and ease of transactions. In addition to making the website functional, online retailers need also to consider the aesthetics of the websites and its visual appeal. However, the website functionality should not be compromised by excess design - as it has

been revealed by the results of the present study, excessive design features such as customizable pages and interactive features on the website may lead to lower levels of satisfaction among customers.

2. *Keeping promises.* Fulfillment has been identified as a strong determinant of customer satisfaction and customer loyalty intentions; therefore it is important for online retailers to make sure that they keep the promises made to customers. This means that it is important for online retailers to ensure timely delivery and merchandize stock availability. Failure to provide timely and accurate delivery for online retailers is most often caused by unsynchronized business online (marketing and sales functions) with offline (inventory and logistics management functions) business processes (Jun, Yang and Kim, 2004). To improve this, online retailers should employ information systems that integrate the various business operations and provides effective communication between business functions. This also implies external integration of supply chain partners including suppliers and shipping companies. Retailers also need to ensure truthful and reliable as well as detailed descriptions of products provided on their website.
3. *Service Level.* The results of the present study show that one of the best ways to ensure customer satisfaction is by providing high level of customer service. To provide higher level service online retailers need to ensure quick an efficient response to customer enquiries and provide means of solving problems occurring on the website promptly and efficiently. Since consumers are not limited by time and location when they are shopping online, it should be expected that they will shop outside the traditional shopping hours and response to customer problems should be ensured at any time. To ensure that customer can contact the company when needed online retailers should incorporate electronic Customer Relationship Management Systems (CRM) that handle customer request from various channels, including e-mail, telephone, and live chats (Jun, Yang and Kim, 2004). Higher quality of service lies also in responsiveness to customer problems and effective handling of those problems. Resources should be allocated to train staff to sustain a service oriented approach when communicating with customers. It is also important that enough staff is allocated for handing consumer queries
4. *Security.* Since security has been found as to be an important source of satisfaction, online retailers need to work on creating secure online shopping experience for consumers. In order to do that advanced methods of encryption should be employed

together with digital signatures (Jun, Yang and Kim, 2004). On top of that clear security and privacy policies should be provided on the website in order to reassure the customers.

5. *Social environment.* Finally, despite the claimed effectiveness of social media as a promotion tool, online retailers need to be cautious when creating the social experience on their websites. Links to social media, such as Facebook and Twitter, should be incorporated on the websites in a way that they do not act as distractions for customers.

8 Limitation and further research

Although the research was developed with thorough consideration of the set research objectives, certain limitations of the present research design were unavoidable due to the tradeoff between available methods. One of the main limitations of the present research is the use of convenience sampling and a sample of only university students. While it has been observed in the publications on online consumer behaviour based on a national sample in Sweden that young consumers in the age of 15-29 are the most active category of online consumers, yet the findings obtained in the present study relate to consumers in Sweden of this age only and cannot be representative of consumers in other age categories. Additionally, because of non-random sampling method employed, the obtained findings cannot be generalized to the entire population of consumers in the considered age group. A further research may include a wider sample of online consumers of different ages. In addition a random sampling can be employed. Specifically, the study may be based on a random sample of registered consumers of online retailers.

A further limitation of the present study relates to the concept of customer experience itself. Because the concept of customer experience is very wide, it was not possible to measure each of the components in greater depth – an attempt to study each of the components in depth would have led to a too cumbersome questionnaire and extended considerably the time span of the research. Therefore, only a limited number of items were included in the initial conceptual model and employed in the research instrument. As a future research it is recommended to explore the components of online customer experience in greater depth with larger number of variables representing each component. Perhaps, in future it would be reasonable to devote an entire research to the study of separate components. While the functional components such as usability and pragmatism have already been extensively researched, a suggestion for future research is to examine the other, least explored components of online customer experience such as the relational and affective components separately.

Finally, as a result of the present research it has been revealed that availability of networking and customization elements on retailers' website leads to lower levels of customer satisfaction which appears to be an intriguing finding. Therefore, as a future research it would be interesting to examine these findings in greater detail. Perhaps a qualitative study could complement the obtained findings so as to gain an understanding of why these elements lead to lower level of customer satisfaction.

9 Bibliography

- Addis, M., and Holbrook, M. B. (2001). On the conceptual link between mass customisation and experiential consumption: an explosion of subjectivity. *Journal of Consumer Behaviour*, 1(1), pp. 50-66
- Bitner, M.J., Booms, B.H., Tetreault, M.S., 1990. The service encounter: diagnosing favourable and unfavourable incidents. *Journal of Marketing*, 54 (January–March), pp. 71–85.
- Bryman, A. and Bell, E. (2007) *Business research methods*. (2nd ed.) Oxford: Oxford University Press
- Buttle, F., (1996), "SERVQUAL: review, critique, research agenda," *European Journal of Marketing*, Vol.30, Issue 1, pp. 8–31
- Constantinides, E. (2004), Influencing the online consumer's behavior: the Web experience, *Internet Research*, Vol. 14 Iss: 2 pp. 111 – 126
- Demangeot, C and Broderick, A., (2007), "Conceptualising consumer behaviour in online shopping environments", *International Journal of Retail & Distribution Management*, Vol. 35 Iss: 11 pp. 878 – 894
- Edvardsson, B. (2005), "Service Quality: Beyond Cognitive Assessment," *Managing Service Quality*, 15 (2), pp. 127-31
- Edvardsson, B., A. Gustavsson, M. Johnson and B. Sandén, B. (2000), *New Service Development and Innovation in the New Economy*. Lund, Sweden: Studentlitteratur.
- Gentile, C., Spiller, N. and Giuliano Noci (2007), "How to Sustain the Customer Experience: An Overview of Experience Components that Cocreate Value with the Customer," *European Management Journal*, 25 (5), pp.395–410.
- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of marketing*, 18(4), pp. 36-44.
- Grönroos, C. (2007). *Service Management and marketing*. Chichester: John Wiley.
- Gupta, S. and Vajic, M. (2000), "The contextual and dialectical nature of experiences", in Fitzsimmons, J.A. and Fitzsimmons, M.J. (Eds), *New Service Development: Creating Memorable Experiences*, Sage, Thousand Oaks, CA, pp. 33-51.
- Hair, J.F. Jr., Anderson, R.E., Tatham, R.L., and Black, W.C. (1998). *Multivariate Data Analysis*, 5th Edition, Upper Saddle River, NJ: Prentice Hall.

Harris, R., Harris, K. and Baron, S. (2003), "Theatrical service experiences: dramatic script development with employees", *International Journal of Service Industry Management*, Vol. 14 No. 2, pp. 184-99.

Holbrook, M. B. (2006). Consumption experience, customer value, and subjective personal introspection: An illustrative photographic essay. *Journal of Business Research*, 59(6), pp. 714-725.

Holbrook, M. B. and Hirschman E. C. (1982), "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun," *Journal of Consumer Research*, 9 (September), pp.132-40.

Holloway, B., and Beatty, S. (2008). Satisfiers and Dissatisfiers in the Online Environment: A Critical Incident Assessment, *Journal of Service Research*, Iss: 10, pp.347-364

Jun, M., Yang, Z., Kim, D. (2004), Customers' perceptions of online retailing service quality and their satisfaction, *International Journal of Quality & Reliability Management*, Vol. 21 Iss: 8 pp. 817 - 840

Keeney, R.L., (1999). The value of internet commerce to the customer. *Management Science* , 45 (4), pp. 533-542.

Klaus, P. (2010), 'EXQ: development and validation of a multiple-item scale for assessing customer experience quality', [Dissertation]. British Library EThOS, EBSCOhost, viewed 8 April

Lemke, F., Clark, M., & Wilson, H. (2011). Customer experience quality: an exploration in business and consumer contexts using repertory grid technique. *Journal of the Academy of Marketing Science*, 39(6), pp. 846-869.

Liljander, V., & Strandvik, T. (1997). Emotions in service satisfaction. *International Journal of Service Industry Management*, 8(2), pp. 148-169.

Lim, H. and Dubinsky, A. J. (2005), The theory of planned behavior in e-commerce: Making a case for interdependencies between salient beliefs. *Psychol. Mark.*, 22. pp. 833-855.

Malhotra, N.K. and Birks, D.F.(2003) *Marketing research: an applied approach*, 2nd European edition; London: Pearson Education

May, T. (2001). *Social Research: Issues, Methods and Research*. 3rd edition, Buckingham: Open University press.

- Meyer, C. and Schwager, A. (2007). Understanding customer experience. *Harvard Business Review*, 85, 2, p.116
- Mitchell, M. L., & Jolley, J. M. (2012). *Research design explained*. Wadsworth Publishing Company.
- Nambisan, P., & Watt, J. H. (2011). Managing customer experiences in online product communities. *Journal of Business Research*, 64(8), 889-895.
- Novak TP, Hoffman DL, Yung YF. (2000), Measuring the customer experience in online environments: a structural modeling approach, *Market Science*,19(1), pp.22–42..
- Oliver, Richard L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(November), 460–469.
- Overby, J. and Lee E. (2006), The Effects of Utilitarian and Hedonic Online Shopping Value on Consumer Preference and Intentions, *Journal of Business Research*, 59, pp. 1160–6.
- Pallant, J (2007) *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows (Version 15)*, Buckingham: Open University Press
- Palmer, A. (2010). Customer experience management: a critical review of an emerging idea. *Journal of Services Marketing*, 24(3), pp. 196-208.
- Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1985) A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), pp. 41-50
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). ES-QUAL a multiple-item scale for assessing electronic service quality. *Journal of service Research*, 7(3), pp. 213-233.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality, *Journal of Retailing*, Vol. 64 No. 1, pp. 12-40.
- Perry, C., Riege, A. and Brown, L (1999). Realism's role among scientific paradigms in marketing research. *Irish Marketing Review*, 12(2), pp. 16-23
- PostNord, (2011), *E-commerce in the Nordics 2011*, [online] PostNord, Available at: <<http://www.postnord.com/PageFiles/3081/E%20commerce%20in%20the%20Nordics%20011.pdf>> [Accessed: 12 September 2012]
- Prahalad, C. and Ramaswamy, V. (2004). *The future of competition: co-creating unique value with customers*. Boston, Mass: Harvard Business School Pub.

- Rose, S., Clark, M., Samouel, p., and Hair, N. (2012) Online Customer Experience in e-Retailing: An empirical model of Antecedents and Outcomes, *Journal of Retailing*, Volume 88, Issue 2, pp. 308-322
- Ryan, M., Buzas, T., and Ramaswamy, V. (1995) Making CSM a power tool: composite indices boost the value of satisfaction measures for decision making, *Marketing Research*, (Summer), pp.11-16.
- Saunders, M. , Lewis, P. , and Thornhill, A. (2007) *Research Methods for Business Students*, 4th edition, Harlow: Prentice Hall.
- Scarpi, D (2012). Work and Fun on the Internet: The Effects of Utilitarianism and Hedonism Online, *Journal of Interactive Marketing*, 26 (1), pp. 53-67
- Schmitt, B.H. (1999) *Experiential Marketing*. The Free Press, New York.
- Smith, M., Thorpe, R., Lowe, A. (2002). *Management Research: an Introduction*. 2nd edition. SAGE publications.
- To, P., Liao, C., Lin, T, (2007) Shopping motivations on Internet: A study based on utilitarian and hedonic value, *Technovation*, 27(12), pp. 774-787
- Verhoef, P. C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros, M., and Schlesinger, L. A. (2009). Customer experience creation: determinants, dynamics and management strategies. *Journal of Retailing*, 85(1), pp. 31-41.
- Wilkins, S., and Huisman, J. (2011). Student recruitment at international branch campuses: can they compete in the global market? *Journal of Studies in International Education*, 15(3), pp. 299-316
- Wolfinbarger, M., and Gilly, M. C. (2003). eTailQ: dimensionalizing, measuring and predicting etail quality. *Journal of retailing*, 79(3), pp. 183-198.
- Wolfinbarger, Mary F., & Gilly, Mary C. (2001). Shopping online for freedom control and fun. *California Management Review*, 43(2Winter), pp.34–55.
- Zeithaml, V. A., Berry, L.L., and Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(April), pp. 31–46.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(Fall), pp. 362–410.

10 Appendixes

Appendix 1. Research instrument

With this questionnaire I wish to study people's experience with online shopping and I would like to know about your experience with shopping on the Internet. I greatly appreciate your honest and objective response and, therefore, ensure that this questionnaire is entirely anonymous.

Please answer the following questions IF you have bought something on the Internet in the past year.

Are you currently a student at a university in Sweden?

- Yes
 No [Please end questionnaire here if you answered "No" to this question]

Have you bought anything online in the past year?

- Yes
 No [Please end questionnaire here if you answered "No" to this question]

-
1. **Please select your sex:** Male Female
2. **Please state your age:** _____
3. **What is your family status:**
 Living alone Living with a partner Living with parent(s) Living with child(ren)
4. **Which of the following best describes your total monthly income after tax** (including income from student support, loan and salary and etc.)?
 0 – 3 999 SEK 12 000 – 15 999 SEK
 4 000 – 7 999 SEK 16 000 – 19 999 SEK
 8 000 – 11 999 SEK 20 000 SEK and more
5. **Approximately how often do you shop online?**
 Several times a month Once a month Once every other month Once a year

In order to answer the following questions, please recall your **one most recent** purchase online - that is a situation, when you bought some product or a service over the Internet.

6. What kind of product did you buy during you most recent purchase online?

- | | |
|---|---|
| <input type="checkbox"/> Apparel (clothes, shoes, accessories and etc.) | <input type="checkbox"/> Car accessories |
| <input type="checkbox"/> Cosmetics | <input type="checkbox"/> Groceries |
| <input type="checkbox"/> Books | <input type="checkbox"/> Event tickets/cinema tickets |
| <input type="checkbox"/> Electronics/appliances/computer hardware | <input type="checkbox"/> Services (such as a insurance/cell-phone credit/bills) |
| <input type="checkbox"/> Computer software/games/movies and music | <input type="checkbox"/> Airline/train tickets (or other travel tickets) |
| <input type="checkbox"/> Sport and leisure items | <input type="checkbox"/> Hotel booking |
| <input type="checkbox"/> Furniture/home improvement items | <input type="checkbox"/> Other: _____ |

7. In this question I would like you to think of your recent purchase online and reflect on the following statements in terms of this purchase experience:

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree	Not applicable
The website was convenient to use	<input type="checkbox"/>						
The website provided good promotions and discounts	<input type="checkbox"/>						

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree	Not applicable
The company compensates customers in case if problems occur	<input type="checkbox"/>						
It was easy to navigate through the website	<input type="checkbox"/>						
The website provided good customer support service	<input type="checkbox"/>						
The website was visually appealing	<input type="checkbox"/>						
The product I needed was in stock	<input type="checkbox"/>						
In case if problems occurred the website showed effort to solve them	<input type="checkbox"/>						
The features of the website such as my personal account page made me feel that the company recognizes me individually as a customer	<input type="checkbox"/>						
The company promptly reacted to problems occurred on the website	<input type="checkbox"/>						
The website had useful interactive features (such as being able to view the product from all angles, building the product I want, or trying on items virtually).	<input type="checkbox"/>						
The website provided an opportunity to read the reviews about the product from other customers	<input type="checkbox"/>						
The website provided enough information for me to make an informed purchase decision	<input type="checkbox"/>						
I could trust the website with my credit card and personal information	<input type="checkbox"/>						
The website appearance was professional	<input type="checkbox"/>						
The product choice/variety provided on the website was good	<input type="checkbox"/>						
The website provided efficient ways to get in touch with the company	<input type="checkbox"/>						
The price for the products was good	<input type="checkbox"/>						
It was easy to find what I need on the website	<input type="checkbox"/>						
The order was delivered when promised	<input type="checkbox"/>						
The products offered on the website were in stock	<input type="checkbox"/>						
The product corresponded well to the description provided on the website	<input type="checkbox"/>						
The company provided good information about terms of the purchase	<input type="checkbox"/>						
The website provided an opportunity to connect with other customers interested in the product via a blog or a community	<input type="checkbox"/>						
The website offered good return/exchange policy	<input type="checkbox"/>						
It was fun to shop at this website	<input type="checkbox"/>						
I felt safe doing my transactions with the website	<input type="checkbox"/>						
The website provided an opportunity to share information and my experience with the products with others using social networks such as Facebook or Twitter	<input type="checkbox"/>						
The information on the website was well structured	<input type="checkbox"/>						
The website allowed to customize the shopping pages according to my preference	<input type="checkbox"/>						
The website stored my preferences and offered products or services based on my preferences	<input type="checkbox"/>						
It was quick and easy to complete the transaction on the website	<input type="checkbox"/>						

8. Please indicate your level of agreement with the following statements in regards to this shopping experience.

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
I was satisfied with my decision to shop with this online retailer	<input type="checkbox"/>					
I will do more business with this online retailer in the next few years	<input type="checkbox"/>					
My choice to shop with this online retailer was not a wise one	<input type="checkbox"/>					
I encourage my friends and relatives to shop at this online retailer	<input type="checkbox"/>					
I think I did the right decision to shop with this online retailer	<input type="checkbox"/>					
I say positive things about this online retailer to other people	<input type="checkbox"/>					
I would recommend this online retailer to someone who seeks my advice about the similar products/services	<input type="checkbox"/>					
I will consider this online retailer as my first choice to shop online for similar products/services	<input type="checkbox"/>					
I feel bad about my decision to shop with this online retailer	<input type="checkbox"/>					
If I had to do it all over again, I would not shop with this online retailer	<input type="checkbox"/>					

Thank you for participation!

Appendix 2. Letter to university staff

Dear ...,

My name is Lyudmila and I am a master student at Service Management: Retail program at Campus Helsingborg. I am currently conducting a research as part of my master thesis under the supervision of Birgitta Olsson. My research is devoted to the study of online customer experience and for this purpose I am surveying students at Lund University. In this relation, I wish to kindly ask you for assistance. Specifically, I was hoping if it would be possible for me to approach students from your program (or other courses you are lecturing) at the beginning or the end of a lecture where I could ask them to participate by filling out a questionnaire. Altogether with the introduction and the questionnaire it would take around 10-12 minutes. I am carrying out the research during this week and the week after that (until the 10th of May). Please let me know if this is possible to arrange. If that arrangement is not possible, can you please assist me by forwarding an online version of my questionnaire to students at your program as per the link below.

Thank you for your consideration. Hope for your assistance in this matter.

Sincerely yours,

Lyudmila Vafaeva
Master Program in Service Management: Retail
Lund University
Campus Helsingborg
Tel: 0738337263
E-mail: sma12lva@student.lu.se

Link to questionnaire:

Message for students:

Dear Fellow Students,

My name is Lyudmila and I am studying Retail at Campus Helsingborg. At the moment I am conducting a research as part of my thesis work on online customer experience. For this purpose I am surveying students at the university – that is you!

It would be of great help to me in my research if you could share your experience of online shopping by filling out a questionnaire. The questionnaire takes 5 minutes (I timed!) and asks about your impressions of the service provided to you during a recent online purchase. So, if you have previously bought something online, please help me by filling out a questionnaire here: http://kwiksurveys.com?u=study_in_sweden

Your response is very important for me!

Good luck with your studies!

Best regards,

Lyudmila Vafaeva

E-mail me if you have any questions: sma12lva@student.lu.se

Appendix 3. Result of statistical analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,816
Bartlett's Test of Sphericity	Approx. Chi-Square	1455,417
	df	406
	Sig.	,000

Table 5. Measures of model suitability for exploratory factor analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
	(Constant)	25,150	,320				78,585
Factor 1: Website usability	1,892	,383	,392	4,938	,000	1,131	2,652
Factor 2: Networking and customization	-,652	,328	-,151	-1,990	,049	-1,303	-,002
Factor 3: Personal attention	-,152	,338	-,034	-,449	,655	-,823	,520
Factor 4: Fulfillment	1,463	,323	,342	4,532	,000	,823	2,104
Factor 5: Security	1,075	,381	,220	2,822	,006	,319	1,831
Factor 6: Customer support	1,240	,357	,267	3,471	,001	,531	1,949
Factor 7: Economic value	,311	,476	,051	,652	,516	-,635	1,256
Factor 8: Customer awareness	,124	,340	,027	,364	,716	-,550	,798

Table 6. Multiple regression analysis results predicting customer satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
	(Constant)	23,449	,339				69,269
Factor 1: Website usability	1,930	,405	,401	4,764	,000	1,126	2,735
Factor 2: Networking and customization	,608	,347	,141	1,755	,082	-,080	1,296
Factor 3: Personal attention	-,328	,358	-,074	-,915	,362	-1,038	,383
Factor 4: Fulfillment	1,534	,342	,359	4,492	,000	,856	2,212
Factor 5: Security	,496	,403	,102	1,231	,221	-,304	1,296
Factor 6: Customer support	,735	,378	,158	1,945	,055	-,015	1,485
Factor 7: Economic value	,639	,504	,106	1,269	,208	-,361	1,639
Factor 8: Customer awareness	,073	,359	,016	,205	,838	-,639	,786

Table 7. Multiple regression analysis results predicting customer loyalty intentions