Web usability constraints online users encounter when booking travel products

Jafet Alvarez

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Author:	Jafet Alvarez
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Supervisor (Arcada):	Niklas Eriksson

Abstract:

Doing business online today is becoming more challenging than ever. One reason for this is that some firms rely on its online selling platform or builds one to support its brick-and-mortar shop. However, as technology use becomes the norm in everyday life of people, having a website that is usable and supports customers' experience is of paramount importance. This thesis investigates the usability constraints that online users encounter when booking travel products.

A major justification for this research is that online shopping is an interactive activity influenced by several factors related to both the user and the medium where it occurs and should be investigated employing different research techniques. Drawing from literature of various disciplines such as information systems, electronic commerce, and human-computer interaction the study is approached through a combination of eye tracking method, observations, questionnaires, and semi-structure interviews.

Data was collected using a non-experimental design from 25 undergraduate students. Two travel websites were used in the research where participants completed booking tasks. Results varied between phases, websites and tasks. Simple tasks received higher and more positive usability ratings whereas poor simplicity and learnability affected the usability perceptions of one website during the complex tasks. In the booking selection phase participants used more time and effort than in the transaction completion phase. Price invisibility of travel items was the issue that participants struggled with the most. In the end, the website with higher perceptions on simplicity and content was not the one perceived as having superior user experience. Implications for theory and recommendations for electronic commerce managers are provided.

Keywords:	Web usability, user experience, travel booking, task complexity, e-commerce, online shopping.
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PART 1: INTRODUCTION

1.1 Background and need

In current internet era, people's lives are flooded with information on a daily basis. This is true among all age groups including adolescents, middle-aged and more adult populations. Screen-enabled devices commonly used by these groups range from desktop computers, tablets, and smartphones and several of these gadgets can be found in one single household. Wireless communication technology has been globally adapted and this trend can be seen equally in Shanghai, Lagos, San Diego and Helsinki. Also, with the rise of the internet, many businesses in recent years have shifted from having physical locations to online portals and mobile applications. For instance, in European Union countries, electronic sales have increased in the retail sector alone from 18 percent in 2012 to 25 percent in 2015 and the numbers keep growing (Dachs et al. 2016). In the United States these numbers have been rising over 10 percent annually (Lindberg 2018). According to Postnord (2018), Finland – where internet adoption reaches up to 97 percent – is the nation among the Nordic countries where consumers buy products from abroad directly online.

People in general are becoming more skilled in using the internet to perform a variety of daily tasks remotely such as banking, health care, schooling, retail and grocery shopping, and even working. They are enabled with a multiple array of choices when deciding to buy a product or service online while also being able to make product reviews and recommendations on a retailer's website and social media platforms (Bilgihan et al. 2016). Almost anything can be bought (and sold) from electronic commerce (e-commerce) websites such as Amazon, eBay and Alibaba, and today almost every travel agency, tour operator or hotel organization sell its services primarily online without the need of a physical selling point. These all suggest that consumer behavior when shopping online is being influenced by these societal and market changes and so too their overall shopping experience. For instance, Lindberg (2018) listed better imagery, website performance, and

user experience as some of the utmost aspects for e-commerce firms to stay competitive in 2018.

1.2 Statement of the problem and aim

As previously discussed, internet shopping is becoming more frequent among consumers due to the unlimited number of advantages it provides to them including convenience, low cost and real-time product or service availability. However, e-commerce firms and online retailers still struggle to optimize the shopping experience for consumers who sometimes retract their decision to leave without completing a transaction or choose a competitor's site to finalize their purchase (El Shamy & Hassanein 2018; Loiacono, Watson & Goodhue 2002; Wang et al. 2014). Similar is the case for travel booking websites (Nielsen & Pernice 2010: 188). In light of this concern, this thesis *investigates the major website usability constraints that online users encounter when choosing and booking travel products.* The aim of this thesis is to determine the most critical difficulties, if any, that consumers face when choosing and booking products or services online and explain what kind of effects these difficulties have in their purchasing process. Of interest is also to uncover relevant differences between simple and complex booking tasks and how these differences are reflected in users' perception of the usability of the website and in their overall booking experience.

1.3 Significance to the field

This research is motivated, on the one hand, by the fact that ongoing advances in information and communications technology provide brick-and-mortar merchants including travel service providers an opportunity to diversify their selling channels and broaden their regional reach. Also, digitalization has allowed small companies to easily emerge and to market their offerings with a low budget in the global market regardless of the type of product. On the other, consumers' skills and capabilities to use internet-connected devices

are developing quickly and in turn their purchasing decision-making processes and perceptions are also evolving. For example, today consumers expect internet sites to respond fast to queries irrespective of the physical location of the user, the technical capabilities of the computer used or the browser being employed (Loiacono et al. 2002). These all mean that not only the traditional market is saturated with brands of product similarities and shop types targeting specific segments of consumers but also the online business is going through the same trend and happening at a fast pace. Surely this trend presents challenges for travel and tourism firms in particular and for the electronic commerce industry in general regarding marketing and competitiveness. Also the emergence of a multitude of marketing channels and ongoing development of new business models due to digitalization makes it even more challenging for firms to meet their business targets.

That said, crucial is for businesses large or small to identify even the minor spots in the buying process that have major implications not only in customers' purchasing decision making but also in the overall online shopping experience that influence their perception of the brand and as a consequence their future behavior towards that brand, webstore or booking site (Fang, et al. 2016; Loiacono et al. 2002). This is the main concern here.

1.4 Structure of the thesis

This thesis is structured along five parts and these include the following:

In the present chapter (Part 1) the research problem, its background and importance are introduced. Part 2 elaborates on the existing literature on e-commerce, online travel business and consumer behavior and buying decision making. The customer purchasing process is also discussed in this chapter together with research studies concerning website usability and user experience in shopping contexts. Part 3 describes the methodology, tools and cases used in the investigation whereas Part 4 provides a thorough account of the data collected including objective and subjective relevant to the four research questions developed. Finally, Part 5 discusses the findings, presents conclusions of these and makes

suggestions for future research. The present chapter ends by outlining important delimitations and the scope set to make this research possible and by highlighting key definitions.

1.5 Delimitations and scope

To make this research possible, some choices had to be made in order to stay within certain boundaries. For example in Chapter 2.4, usability and shopping experience are broad concepts that include several aspects of a user/consumer's interaction with an object, product, service or brand. These aspects can be of utilitarian or hedonic qualities and can be intrinsically, extrinsically influenced, or both. In this thesis, the utilitarian or functional aspects are covered and the hedonic or emotional aspects are left out. Also, a purchasing scenario is created where a restricted number of participants assume to be booking a trip online as they would do in real life and these are also delimitations. In other words, the conditions of the research are not natural but fictitious. Moreover, purchasing and travel booking settings vary from one to another and this research utilizes an example from the ferry line industry in short-distance one-day/night scenario. Furthermore, the sample population is mainly made of undergraduate students and thus their behavior might not fit with that of the normal population of travel buyers. Regarding the methodology employed, mixed methods were used including a non-experimental design where elements in the laboratory influencing the study were not fully controlled. In addition, the results implied heavy interpretation of one single researcher. In spite of these delimitations, rules and guidelines to conduct research were closely followed in order to produce fruitful answers to the research questions of the thesis.

1.6 Definitions

Throughout this report there are words and concepts used in other texts with slightly different meaning that is worth clarifying. Below are the most essential.

Purchasing experience, is a context specific term and is defined in this thesis as one which derives from the act of choosing, paying, packaging, and encountering and using directly or indirectly the service of the seller (Carú & Cova 2003: 271). *Buying* and *shopping*, in this thesis, carry a more general meaning than purchasing. Considering that this is a travel specific topic, *booking* is the suitable and common term use throughout the text.

E-commerce is defined here as the activity of buying and selling of products or services though internet connected websites (Dachs 2016). *Internet retailing* and *online business* although denoting a different meaning, in this thesis are used as synonyms.

Online/internet shopping: an activity performed by an individual through a computer-based interface connected to the internet by which s/he can virtually interact with a retailer and make purchases of non-physically present products (Häubl & Trifts 1999).

PART 2: LITERATURE REVIEW

2.1 E-commerce

In the current Digital Age, people in almost every corner of the world are enabled with internet-connected devices not only at home but also on-the-go and this allows them to access a higher variety of product and brands to satisfy their needs. Similarly, retailers regardless of their location are able to reach and serve customers any time of the day by basically just having a computer with internet connection. But, how are all these possible today but not a few decades ago? Everything started in the 1960s when the United States government created the Advanced Research Project Agency ARPAnet, an entity designed to operate along a network for sharing documents only for the military and some research institutions. Later, in the 1970s ARPAnet was expanded into scientific institutions in Europe. And it was not until the beginning of 1980s that with the creation of the TCP/IP (Transmission Control Protocol/Internet Protocol) technology as a language medium to connect networks of computers that the "internet" was officially born. Finally, in 1991 the National Science Foundation officially granted permission to use the internet for commercial purposes and thus e-commerce was initiated. A few years later Amazon.com was founded and the first books were sold online (Hussung 2016).

Thus, from only about 200 websites in 1981 to one million in 1992, today there are hundreds of new websites created every 24 hours (Soulo 2018). These numbers are astonishing considering the fact that both consumers and business alike gain some value out of this technology. It also brings challenges because, as suggested in the previous chapter, consumers choices to search for, evaluate, compare, and buy products and services of any kind are unlimited. The challenge is nevertheless more impactful for businesses to compete in an overly saturated World Wide Web.

2.1.1 E-commerce in tourism

Within tourism, Hjalager (2015) name the internet and electronic ticketing as some of the 100 innovations that transformed the industry bringing along benefits for both consumers and businesses. These two innovations appeared in the 1990s aided by the computer reservation (CRS) and global distribution (GDS) systems that had been already in use the previous decades (Buhalis 1998). The airline industry deregulation in the end of the 1970s was the stage that facilitated the movement of massive number of travelers around the world and as consequence airline operators required of powerful tools to handle their inventory across multiple channels. This was achieved first by managing their supply through CRS. Then, a decade later (1980s), this tool became more sophisticated and called GDS to combine flights with other travel, tourism and accommodation services thus providing up-to-date and customized offers bookable from any part of the world (Anckar & Walden 2002).

By the end of the 1990s, major airlines, travel organizations and hotel chains had a website up and running. However, although arguments favoring the disintermediation of the industry to make room for the internet to take on the prominent role of the travel agent existed at that time, still there were issues against that arguably affected the adaptability of internet booking for consumers. Some of these issues were, for instance, the simplicity of using travel agents instead of learning a totally new technology, the belief of getting better deals from conventional travel agents than from a website, and the feeling of security, reliability and trust provided by the direct interaction with travel agents compared to service providers' website. Also, internet booking was not yet perceived to be cost advantageous (Anckar & Walden 2002; Buhalis 1998). These arguments against internet usage and online booking by consumers were perhaps also influenced the low level of home computing at the time, and the rather poor and blunt user interface of websites together with the shortcomings of slow computers and internet connections. Nevertheless, in 1998 in the United States 75 percent of travel service providers were already taking reservations online and travelling was one of the top three purchased products online besides consumer electronics and books (Lang 2000; Weber 1999). In Finland today, about 77 percent of total travel and tourism bookings are made through the internet and the

corresponding figures are 84 percent for flights and 67 percent for ferries or boats (Statistics Finland 2018b). However, in modern times many tourism marketers still underestimate or fail to understand the full value that internet technologies and optimized websites can add to their business processes to further satisfy the demands of more informed and knowledgeable customers.

2.2 Consumer behavior and decision making

In order to investigate the constraints that potential travelers encounter during the online purchasing stage is first necessary to understand how consumers behave and make buying decisions.

Some of marketers' continuous challenges are on the one hand to ensure that only the needed and desired products and services are created and on the other that consumers receive the right messages through the most optimal communication channels without being obstructive or overselling to them. These have never been easy tasks especially as new marketing channels such as the internet, mobile technologies and others become available. Thus, although the internet today brings many advantages to online users, still there are issues influencing their purchasing behavior that deserve to be further investigated.

Individuals generally behave and are culturally, socially and psychologically different from each other and particularly in consumption environments their purchasing decisions are influenced by a wide array of elements which vary from the nature of the product, the type of consumption activity, and a multitude of other intrinsic and extrinsic aspects (Karimi 2013; Kotler & Keller 2012: 151; Puccinelli et al. 2009). One stream of research that attempts to explain the consumer decision making concentrates on classical models where the complexity of the purchasing context including the multiple internal and external factors affecting her/his decision are comprised. These so-called "grand models" focus on the stages, the sequential steps of the purchasing decision, and the consumer's interrelationships with these stages and the contextual environment (Karimi 2013: 32).

Figure 1 below is a depiction of one of these models. Here, the consumer is seen as a rational decision maker whose buying behavior is first influenced by marketing-related activities regarding product choices and brands. Similarly, s/he also receives stimuli from the surrounding macro environment either from own perception or acquired through experience before making a decision to buy. These marketing and environmental stimuli, in turn, shape consumers' psychological factors including the motivation to buy and these are also influenced by cultural and social referrals and other more personal factors. Then, according to these models, when a particular purchase context comes into play, consumers follow a sequential pattern to make a decision of the kind: *need recognition, information search, and evaluation of alternatives, purchase decision, and post-purchase behavior*. This actual buying decision process is also influenced by more shopping-specific factors such as time, budget, product availability, and payment method. Consumer's potential post-purchase behavior such as product disposability or value confirmation/disconfirmation also influences the final buying decision (Karimi 2013: 55; Kotler & Keller 2013: 166). As can be noted, the buying decision process is a complex phenomenon that starts long before and ends far ahead of the actual purchase and its understanding is equally important for offline and online marketers.

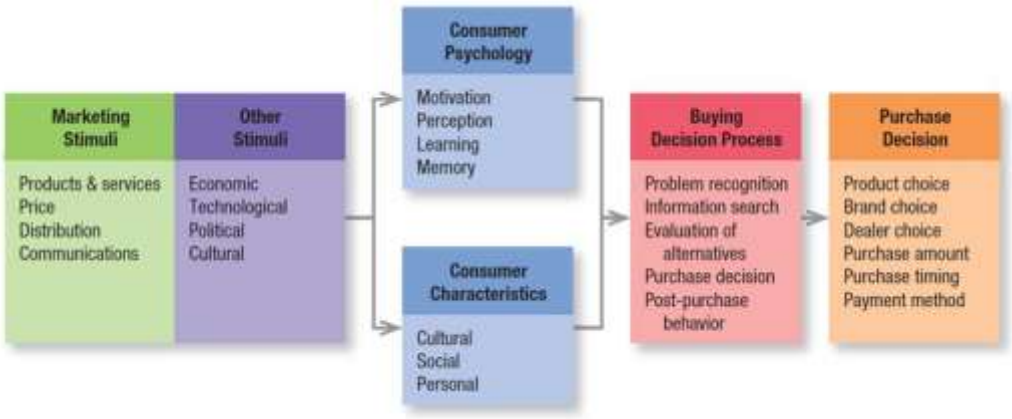

Figure 1. Model of Consumer Behavior (Kotler and Keller 2012: 161).

As such, understanding consumer decision-making behavior is essential to identify issues that affect the purchasing experience and the model just described helps fulfill this purpose. However, such a complex model has a more illustrative focus and aids researchers explain

and conceptualize consumers' purchase decision-making process and factors influencing it rather than serving as research tool due to its overarching scope (Karimi 2013: 54). The next section describes specifically the actual buying decision process and its theoretical underpinnings.

2.2.1 Customer purchasing process

Actual consumer purchasing behavior has been studied and explained from different angles: from the utility maximization perspective of economics and the motivational human aspects of sociology to the attitudinal and cognitive models in psychology (Hirschman & Holbrook 1986: 218). One of theories most cited in the literature of consumer purchasing process is the Cognition-Affect-Behavior model or Theory of Reasoned Action (TRA) of Fishbein and Ajzen (1975) that proposes a linear stance where individuals' beliefs, their evaluative judgments or attitudes and related subjective norms in turn determine their intentions and actual behavior. This TRA theory has been developed further by other researchers and psychologists to include individuals' perceived behavioral control as a factor that precedes their intention and behavior. It has been thereafter known as Theory of Planned Behavior (TPB). Figure 2 is an illustration of the buying purchasing process based on this theory. Numerous consumer buying decision models as well as refinements and extensions of them exist and are based on this simplistic theory (Karimi 2013: 60).

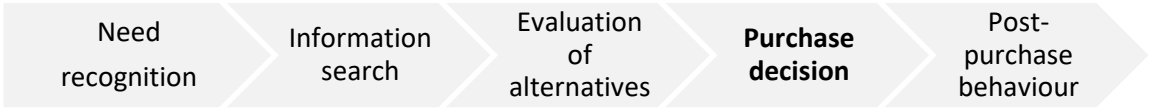

Figure 2. Five-stage model of the consumer buying process (Kotler & Keller 2012: 166).

The Five-stage model, although considered by researchers having some flaws due to its straightforwardness and to the fact that consumers rarely follow a step-by-step decision process or even include all these steps (Karimi 2013: 94), this TPB-derived linear model

have been the common paradigm used as a point of departure to explain consumer behavior in marketing and business related fields when people buy, and consume or use products or services (Frow & Payne 2007; Kotler & Keller 2012: 151; Loiacono et al. 2002; Venkatesh et al. 2003). Also, because classical models such as the one depicted in the previous section are more multifaceted and difficult to use as measurement tools, this latter stage-type of model is more narrowed in focus and thus facilitates its empirical application to study both offline and online shopping environments (Karimi 2013: 93). The focus of this research is on the *purchase decision* stage of the buying process just described. That is, during the *actual purchasing* which is defined here as the step when the customer has already finished making comparisons of any nature and has in her/his mind made up the decision to buy certain product from a chosen website or vendor. This is a crucial stage of the buying process that direct impacts the performance of any business in general and of e-commerce retailers in particular.

2.2.2 Shopping process online

It is argued in the literature that the purchasing process online follow a different pattern than the traditional offline shopping because the factors influencing them are different (Karimi 2013: 44). For instance, although need recognition is a first drive in buying decisions of almost any nature, during information search and evaluation of alternatives stages online consumers are faced with different circumstances such as the inexistence of physical contact with the seller or (in the case of tangible goods) the product. Also, the vast amount of information available on the web – though having its own advantages – often is a burden for customers and makes the buying decision tiresome (Chan et al. 2015; Karimi 2013: 46). Likewise, e-commerce sites usually provide shoppers with recommendations, product reviews, and similarly-browsed and past purchased data on the web shop as decision aids and nudging tactics that are not easily available on brick-and-mortar shops (Table 1). In turn, product documentation and payment processes are also done differently on the web where much of this work is done by the customer himself. When buying online, the customer also has to be aware that purchasing has implications for potential actions

required after purchasing such as guarantees, complaints, or product faults that are different than buying from a brick-and-mortar shop. As argued, the internet seems to have influenced consumer behavior and traditional theoretical models do loosely explain the online purchasing process (Hernandez et al. 2010).

Table 1. Differences between traditional and online shopping (developed for this research).

	Traditional	**Online**
Interaction with seller	Direct	Indirect
Nature of shop	Physical	Virtual
Product information	Limited	Large
Decision aids	Seldom given	Available

These differences just highlighted indicate that customers when shopping online take a more active role than in traditional shopping contexts and e-commerce firms have in this regard paid attention to the impact of this role on customers' decision making by developing tools that assist and facilitate the completion of the shopping process. Also, some authors suggest that the vast amount of information available for customers when shopping online, and the novelty, difficultness, and costs involved in the shopping task, often force them to shorten the buying journey and adapt their decision into a more simplified two-step process such as: 1) the customer identifies all possible products that meet her/his needs and screen them out to select only the most valuable alternatives, 2) then "s/he evaluates the latter in more depth, performs relative comparisons across products on important attributes, and makes a purchase decision." (Häubl & Trifts 1999: 5; Noone & Robson 2014). Such decision process falls within the category of compensatory/non-compensatory strategies in heuristics research and decision science (Karimi 2013: 42; Kotler & Keller 2012: 170). In recent years, computer-based interactive tools such as recommendation and comparison aids have been employed by online firms to streamline the otherwise tedious buying process for customers and to optimize their shopping experience.

Though a common agreement is unseen in the literature regarding the use of a universal model that clearly describes the online shopping process, what is clear is that online shopping is a complex process that is influenced not only by the consumer and its

psychological, cultural and personal characteristics besides the external environment but also by interactive factors related to the website in question. Furthermore, the quality of the purchasing outcome is also shaped by the interaction between the shopper and the retailer's website and therefore the smoothness of how this interaction takes place is of paramount importance (Karimi 2013: 57; Robu 2013). In any case, shopping on the internet allows the customer to become a more prominent actor in the transaction and thus the system's responsiveness and usability to complete her/his buying transaction is crucial. The customer's role of a website *user* in the buying transaction is the approach taken in this thesis.

2.3 Web usability and user experience

According to Nielsen (2012), products that cannot be found or seen on an e-commerce site can neither be bought. This suggests that if online users have made their decision to buy and find a website difficult to use and to complete their transaction they merely leave as soon as they find their chance to do so.

In order to investigate website usability constraints affecting the purchasing experience of customers it is essential to define the concept of experience and its related terms. Consumer/customer experience, user experience, web experience and unlimited number of similar terms have become somewhat overused in the last decade and at times confusing. Nevertheless, early attempts have been made to clarify these terms. For example, Carú and Cova (2003) presented a deconstructed description of the concept of consumption experience in everyday life in general and how marketers have influenced its understanding in consumer contexts in particular. These authors depict the different experience conceptions both within marketing and outside marketing-related domains. Highlighted in their analysis is the socio-psychological viewpoint of *experience* implying "a subjective and cognitive activity which allows the individual to develop" (Carú & Cova 2003: 270). This infers that an experience encompasses both a person's subjective activity that gives

coherence and sense to disparate daily events and a cognitive activity implying reality construction through these day to day events.

Within the technology design field, Hassenzahl (2013) makes reference to the term *user experience* (UX) parallel to the concept just described while emphasizing the personal, emotional and memorable aspects of using, consuming and interacting with products (see Figure 3 below). This definition of user experience share some similarities with Pine and Gilmore's conceptualization of *consumer experience* as something occurring within an "individual who has been engaged on an emotional, physical, intellectual, or even spiritual level" (Pine & Gilmore 1999: 11) when purchasing or using products and services (see also Hirschman & Holbrook 1986: 213).

In short, *consumer* or *customer experience* is commonly considered an evaluation of a holistic interactive activity that occurs when consumers see, read or think about, choose, and use a product or service whereas *purchasing experience* is referred to as an evaluation of one specific phase of the consumer decision making process: the actual purchase. In other words, *purchasing* and *using* are more specific concepts whereas *consuming* is an all-encompassing term. The *user experience* of shoppers (consumers) when completing a purchasing transaction on an online store is the core aspect of investigation of this thesis. For that purpose, Nielsen and Norman's (2018) definition of UX is employed here:

> "User experience encompasses all aspects of the end-user's interaction with the company, its services, and its products. The first requirement for an exemplary user experience is to meet the exact needs of the customer, without fuss or bother. Next comes simplicity and elegance that produce products that are a joy to own, a joy to use."

This latter definition, although being somewhat too broad, fulfils the aim of this research which is to identify potential flaws of a travel website taking place during the actual purchasing process (Law et al. 2009). That is, during the *interaction* with the company's website. Hassenzahl's definition of UX referred to previously, is discarded here due to the overemphasis on the psychological and emotional states which residually remain in the consumer's mind over time. Meaning that Hassenzahl's (2013) conceptualization of UX is

of *ex post* and long-term characteristics and its measurement requires a different approach than the one taken here. The focus of this study is on the user/customer and their experience while completing a shopping task and the aim is to gather actionable findings for e-commerce organizations regarding the usability aspects of their websites. Nielsen and Norman's (2018) concept of UX parallels this focus.

For illustrative purposes, Figure 3 below is a depiction of Hassenzahl's model of UX (2003, in Hornbaek & Hertzum 2017: 8) within the context of interactive products, their design and their influences in users' behavior. The model indicates that individuals' interaction with a technological product, service, organization, or part of it involves all aspects of the user's internal states (cognitive/pragmatic and hedonic/emotional) and such interaction has a resulting overall impact on the user which s/he evaluates on the basis of its appeal, pleasure and satisfaction. Again, because emotional states are less utilitarian aspects of consumers' behavior and because this research comprises a shopping activity in a computer-mediated context which is rather goal-focused and cognitive oriented (Demangeot & Broderick 2007; Hanssenzahl 2004), covered here are only the pragmatic attributes of such model, the impact of these on the user's perceived usability and in her/his overall shopping experience.

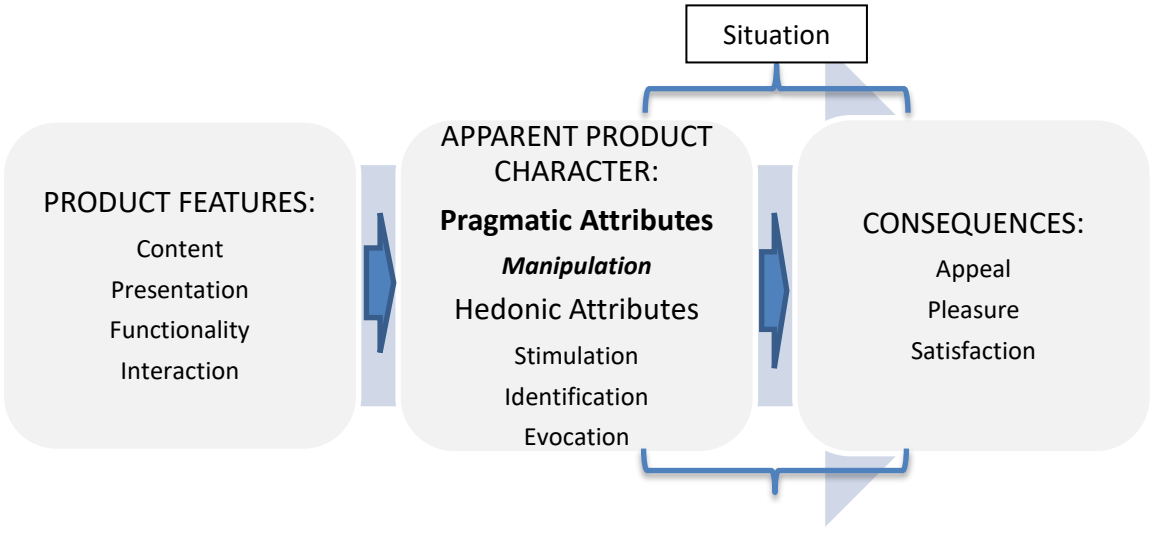

Figure 3. Hassenzahl's model of User Experience from the user's perspective (Hornbaek & Hertzum 2017: 8).

2.4 Studies addressing purchasing experience and usability

Consumer experience in shopping contexts has been extensively studied in almost every industry including retailing and tourism. In the last two decades, research has covered the hedonic and utilitarian aspects of brick-and-mortar shopping in different settings (Babin et al. 1994; Edvardsson et al. 2005), investigations related to business-to-business and business-to-consumer markets (Frow & Payne 2007), or research focusing purely in online retail environments (Demangeot & Broderick 2007; Rose et al. 2012). The stream of research of electronic commerce or e-shopping comprises different domains highlighting various aspects. At the more general level business-related disciplines such as retail, service management and information systems have attempted to describe the key factors influencing consumers' behavior on the web, their attitudes, intentions and consequences (e.g. Bilgihan et al. 2016; Chen & Chang 2003; Constantinides 2004; DeLone & McLean 2004; Demangeot & Broderick 2007; Lim 2013; Lim 2015; Park & Kim 2003; Rose et al. 2012; Torkzadeh & Dhillon 2002). At the more specific level, attention has been given to shoppers' perceived satisfaction with an item selection in a retailer's website (e.g. Mosteller et al. 2014), and to consumers' perceived value derived from using travel and tourism websites (Lexhagen 2008).

The particular aspect of usability of websites within the realm of users' experience is also well researched. Notable works exist to date by information system researchers who have developed methods for website evaluation through the concepts of user acceptance, ease of use and usefulness of technology (e.g. Davis 1989; Loiacono 2002; Venkatesh et al. 2003). Other authors have evaluated e-commerce success in terms of vendor trust and product value (e.g. Torkzadeh & Dhillon 2002), and explained the design and interface features that influence online shopping intentions (e.g. Hausman & Siekpe 2009).

Usability per se, is a concept well known in cognitive psychology and a key term employed within the technology design and human-computer interaction disciplines already since the early 1970s as a method to evaluate the usage quality of system interfaces (Agarwal & Venkatesh 2002; Lewis 2001; Palmer 2002). Thus, usability has been designers' basic testing means for reducing errors, enhance accuracy, facilitate learnability and increase the

usage of devices (Nielsen 2000). In this sense, Davis (1989) adds that "usability testing has become a standard phase in the development cycle" of information technology products. Officially, the International Organization for Standardization defines usability as a term that "relates to the outcome of interacting with a system, product or service… to enable users to achieve their goals effectively, efficiently and with satisfaction" (ISO 2018; Pavlas et al. 2010). This definition is the one used for this research.

Key studies with specific focus on web usability within e-commerce are for example those of Palmer (2002) who developed the usability and design metrics of *download delay, navigability, interactivity, responsiveness and content* to assess the performance of hundreds of global corporations' websites. DeLone and McLean (2004) adapted their Information Systems Success model to e-commerce and included *availability, reliability, adaptability, and download time* along *usability* as metrics to manage the system quality of websites besides five other dimensions. Also Contantinides (2004), in a descriptive study of the factors under firm's control, listed *convenience, site navigation, information architecture, ordering/payment process, search facilities and process, site speed, and findability/accessibility* as usability elements that influence consumers' web experience. Nielsen (2000) in his book *Designing Web Usability* presents an analysis of hundreds of observed websites from different industries including travel and provides recommendations for designers to help consumers perform useful tasks. In another case, Agarwal and Venkatesh (2002), asked individuals to rate the usability of several websites of different sectors including airlines along five major categories: *content, ease of use, promotion, made-for-the-medium, and emotion*. Pan et al. (2011) evaluated the usability problems users faced on an Online Travel Agency's website during the information search step for booking a trip. And more recently, Alcantara-Pilar et al. (2018) studied the effects of perceived, risk, satisfaction, and usability on the decision to travel to a destination.

In the last decade, as technology has got more developed and user interfaces have become more rich, varied and responsive to individual needs, usability research has expanded its scope. Studies now exist regarding the affective and aesthetics aspects of interacting with websites such as pleasure, joy, and fun and their impact on the total user experience (e.g. Hassenzahl 2004; Hausman & Siekpe 2009; Pavlas et al. 2010), investigations on the

relationship of websites' visual aesthetics with individuals' perceived level of attraction of these (e.g. Bojko 2013: 124; Pappas et al. 2018), and works covering the impact of social media related features of websites on each stage of the purchase decision making process (e.g. Huang & Benyoucef 2017; Lim 2015). The scope of this study stays within the functional and goal-oriented aspects of completing a shopping or booking task on a travel website and the main attributes of web usability in the context of online shopping covered here are *effectiveness, efficiency* and *satisfaction*.

Within the mentioned scope and taking as reference the definition of web usability which is to enable users to achieve their goals, this thesis aims *to identify major usability constraints that online users encounter when buying travel products or services*. The specific focus here is on the actual purchasing step of the buying decision process and not on the need recognition or post-purchase behavior steps. In the chapter that follows, the research questions to help achieve the stated aim are outlined and elaborated.

2.5 Research questions

Regardless of whether the online shopping process is a five- or a two-step process as was discussed in sections 2.2.1 and 2.2.2, an almost certain fact is that consumers do make evaluations and comparisons of alternatives before arriving at her/his final decision to purchase. Thus, for any retailer positive signs of a successful digital strategy are seen, for instance, when the website's performance metrics shows that the online store is receiving traffic, potential customers are browsing products or reading company's blog or they are asking product/service-related questions (Palmer 2002). However, if sales are not picking up as expected and enough orders are not being requested in comparison to the traffic the webstore is generating it often means visitors are not making the final decision to buy and this might be due, among several reasons, to usability problems encounter in the online store (Nielsen 2012). As noted in the previous section, website usability problems are of key concern if internet retailers want to find out specific issues customers face during the actual purchasing stage that impacts the firm's bottom line (Lee & Kozar 2012). Or, as

Nielsen (2000: 10) puts it "users experience the usability of a site *before* they have committed to using it and *before* they have spent any money on potential purchases." In light of this concern, the research questions of this thesis are presented below.

2.5.1 Usability during the product selection phase

Consumers visit webstores for a variety of motives. To do their shopping directly from home, office or any other location, to search for lower prices than in physical shops, to make price comparisons between different stores before buying, or to buy products not available in the local shop. Also, as discussed in the literature reviewed above, website design, loading times and ease of navigation are perceived essential reasons for continue shopping on certain websites (Chen & Chang 2003; Wang et al. 2014). However, there are instances when consumers are directed or "forced" to make a purchase online due to the retailer or travel agency's remote physical location or for urgent reasons. One example could be that the same item has a promotional price if ordered or booked online at a certain date (Saleh 2014). In situations like this the customer has already made up her mind about buying certain product or service and thus the online transaction is a must do. Also, the customer faces the risk of losing the value or benefit provided by such product or service if she opts out for not buying at all due to website usability constraints faced. This scenario indicates the importance to know the reasons why consumers become dissatisfied with the usability aspects of a travel website during the product selection phase and this leads to the first research question:

RQ1: What are the main web usability constraints customers encounter while selecting a travel product online?

2.5.2 Usability during the transaction completion phase

According to Constantinides (2004), usability and trust are considered among the main building blocks that affect the web experience of online shoppers. Also, warranty and return policies together with post-sales customer service are factors that motivate consumers to complete an online buying transaction (Chen & Chang 2003). Some of these factors, which influence the shopping decision process, are in control of the customer and some are not. For example, customer's lack of a credit card or membership account to complete a purchase is a factor that the online retailer cannot directly solve. On the contrary, being able to sell without a membership account or through an alternative method to credit card are thus under control of the online retailer. Likewise, the amount of information to be read by the customer, complicated registration and profiling procedures, excessive data inputs and other design-specific and observable aspects of a website are often perceived as problematic by customers during the completion of a transaction (Anckar & Walden 2002; Cho et al. 2006). These are examples of issues affecting online consumers' decision for buying or not products or services from one vendor due to the difficulty of completing a buying transaction and these suggest that there may be usability issues during the transaction completion phase of a travel product that should be investigated. Hence, the second research question is stated:

RQ2: What are the main web usability constraints customers encounter while completing the transaction of a travel product online?

2.5.3 Usability and the overall user experience

These two crucial sub phases of online shopping just discussed which occur during the *actual purchasing* often triggers customers' decision to buy or not and these also influence the perception of their overall user experience (Chen & Chang 2003; Lee & Kozar 2012; Loiacono et al. 2002). The effects of usability and their degree of importance in every step of the purchase decision making process have more recently been investigated, for example

in reference to the social characteristics of e-commerce (cf. Huang & Benyoucef 2017). However, since travel booking denotes a multifaceted activity where tourists often have to build a package including different items such as hotel, transportation, and places to visit besides other arrangement-specific issues such as budget and time allocated for their trip (Eriksson 2012), crucial is to describe the usability issues and its significance for consumers in such context. I.e. To what degree web usability elements influence online shoppers' overall satisfaction when completing a travel booking? Hence, it is necessary to state which of the website usability constraints faced in the online purchasing sub phases of Product Selection and Transaction Completion specifically trigger customers to drop a purchasing transaction (Cho et al. 2006) and, even when they still complete that transaction, influence the perception of their overall user experience. Stressed here is the fact that these aspects also incite them to favor or avoid making future purchases from a webstore or booking site (Hausman & Siekpe 2009). Therefore the third research question is stated:

RQ3: What is the overall satisfaction and user experience when booking travel products online?

2.5.4 Usability and booking task's complexity level

Clearly, and as discussed above, motives to buy online vary among individuals and similarly, the array of products and vendors to satisfy their multiple needs. Therefore, the nature of a product purchased online can have a direct influence in consumers' buying process, on the issues encountered in the search and selection of a product, and in the payment completion of it (Constantinides 2004). More indirectly, these all have an effect in the perceived overall shopping experience related to that specific product. For example, the customer's process and resources employed when buying a movie ticket are different than when searching and deciding to buy a new car online. Each of these examples implies different levels of customer's involvement both with the product itself and with the task of making the purchase online: the first is simpler while the latter is more complex and the cognitive efforts required are different in both cases (El Shamy & Hassanein 2018; Wang et al. 2014). Thus, some authors attest that the shopping task's level of complexity while

purchasing online has an effect on consumers' quality of the buying decision and therefore also in their usability perceptions of that particular website (Chan et al. 2015; Eriksson 2012). Hence, the fourth research question is stated:

RQ4: Are there differences in usability constraints perceived between simple and complex booking tasks?

The answering to these questions could reveal that - considering that in present day most online retailers are equipped with modern, high speed and well-designed websites in addition to broad product assortments, relevant product and company information and accessible prices - there are important web usability issues left unattended by online retailers since often the 'moment of truth' for customers happen in the product selection and payment phases when the actual purchasing is done. In the next chapter, a visual display is developed to depict the concepts and theories used to help answer the research questions just presented.

2.6 Research problem in context

To illustrate the overall theme of the thesis, the specific aspects of study, and the linkage of these with the research questions a concept map is developed here. As such, the three key website usability attributes of *efficiency, effectiveness* and *satisfaction* are approached in the following manner as recommended by Duchowski (2017) and partly adapted from Nielsen (2012), Lee and Kozar (2012), and other authors.

Duchowsky (2017: 216) suggests the following three essential aspects of website performance evaluation from the perspective of usability:

Efficiency = Time to complete the task

Effectiveness = Number of errors committed

Satisfaction = Learnability, helpfulness, control, efficiency, and affect.

Efficiency and effectiveness are reflected in how quickly and how accurate users perform certain task, respectively and these can be objectively measured by capturing for instance time spent in a task and errors made during that task. In turn, satisfaction is a more subjective perception of users related to the usability of the website in question. Here, the usability elements under study that were identified and adapted from the literature include the following: *Navigability, Content Relevance, Learnability, Functionality*, and *Simplicity*. These elements and their respective metrics give emphasis to the online purchasing process sub phases of product selection (RQ1) and transaction completion (RQ2) of a travel booking (see Table 2). Of course, some of these metrics are not phase exclusive but overlap and are often perceived by users in every step of the purchasing experience (Constantinides 2004; Huang & Benyoucef 2017; Lee & Kozar 2012). The users' overall booking experience and their satisfaction with the website's usability are indeed their perceptions of the most salient/s of all these metrics (RQ3), while the nature of the shopping or booking task ought to influence the website's perceived usability (RQ4) and this is seen directly on the measurements outcomes of efficiency and effectiveness and more indirectly in the satisfaction resulting from performing certain task.

Table 2. Web usability metrics when selecting and booking a travel product.

Product selection	**Transaction completion**
Navigability *(Palmer 2002):*	***Functionality*** *(Hausman & Siekpe 2009; Cho et al. 2006; Constantinides 2004):*
Arrangement	Ordering/checkout process
Sequence	Amount of information requested
Links	Presence of shopping cart
Layout	Booking confirmation
Content Relevance *(Agarwal & Venkatesh 2002; Constantinides 2004; Palmer 2002):*	***Simplicity*** *(Lee & Kozar 2012; Cho et al. 2006)*:
Amount of information	Tasks are performed quickly
Variety of information	
Content quality	
Relevance	
Media usage (visuals)	
Learnability *(Agarwal & Venkatesh 2002; Duchowski 2017: 217; Lim 2015):*	
Ease of use	
Feedback	

In short, the concept map (Figure 4) contains a list of usability issues that users of travel websites encounter when buying or booking products and their apparent effect on their overall experience. It is also assumed here that, the core of the research problem takes place during the actual purchasing step of the consumer decision making process. This actual purchasing step is divided here into two sub phases, product selection and transaction completion, and the web usability issues that occur in these phases are related to: *Navigability, Content Relevance, Learnability, Functionality*, and *Simplicity*. As seen in Table 2, most of these issues are believed to be experienced by users in the product selection phase and to a lesser extent in the transaction completion phase but nevertheless all crucial on the perceived satisfaction of the travel website in question. These web usability metrics are not exclusive of one purchasing sub phase but most can be perceived by online shoppers in both sub phases.

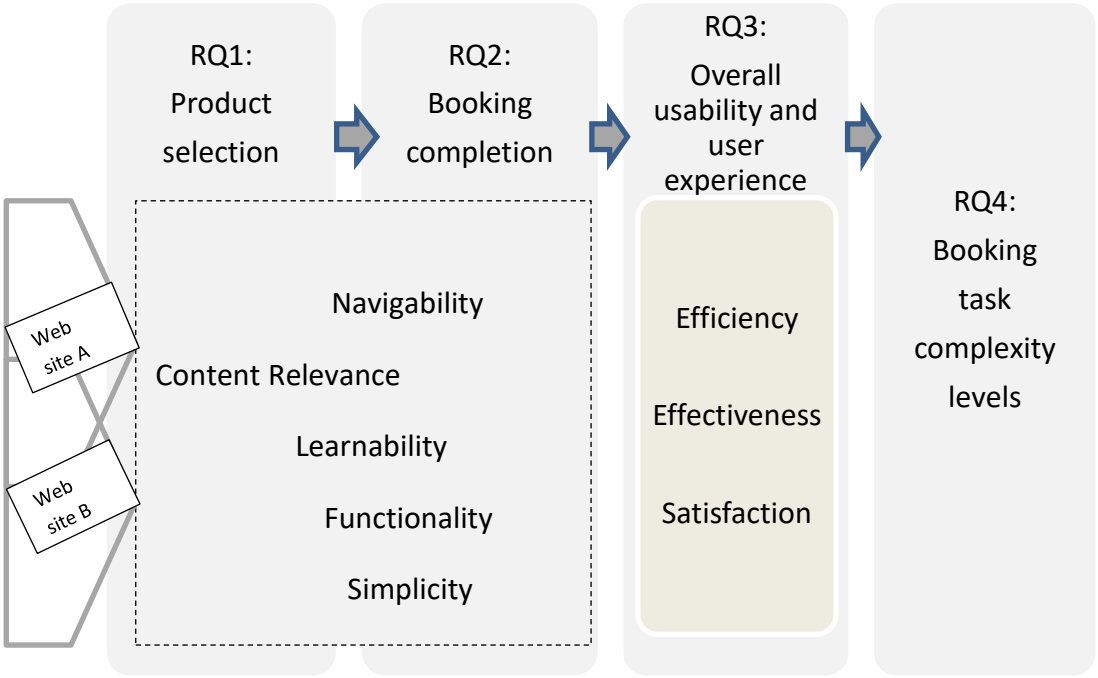

Figure 4. Concept map highlighting the research questions of the study.

According to the literature, the nature of the travel product being booked and/or the complexity of the task has an effect on the user's perceived web usability and so too in

her/his overall shopping experience. Besides the perceived usability of certain website, the complexity of the booking task has direct effects on the user's efficiency and effectiveness of completing such task and indirectly on the user's perceived satisfaction.

This part of the thesis has discussed theory relevant to the subject in question. It is evident that usability and user experience research are entrenched in various domains ranging from cognitive psychology, technology design and business-related disciplines. Immediate literatures consisting of consumer behavior and decision making were also reviewed in this part and specific contemporary research done into website usability and online shopping experience were highlighted. Final sections illustrated and elaborated on the research problem and the research questions. The next part concerns the methodology employed to collect the empirical data.

PART 3: METHODOLOGY

3.1 How to study web usability and user experience?

This thesis investigates *the major website usability constraints that consumers encounter when choosing and buying a travel product online.* Such research problem has implications for the methodology chosen to carry out this investigation which is preceded by certain underlying epistemological and ontological considerations. In the context of business research these considerations mean the following (Bryman & Bell 2011: 15):

- Ontology: how the social reality is perceived? Are they objective entities or are they social constructions?
- Epistemology: what is acceptable knowledge and how it is gathered? What principles and procedures are used?

To study website usability, in the last three decades some tools and models have been devised within different disciplines such as information systems, internet research, and the field of human-computer interaction (HCI). Some of these tools are for instance the Theory of Acceptance Model specially created to measure user intention and acceptance of technology (Davis 1989), the Information Systems Success model developed to measure electronic commerce success (DeLone & McLean 2004), Nielsen's principles of web design and usability (Palmer 2002), and the AttrakDiff questionnaire tool to identify correlations between beauty and usability of websites (Hassenzahl & Monk 2010). As can be suggested, these cited tools and disciplines have one thing in common: they all deal with understanding technological products or digital devices in relation to their users. Also, most of these tools and models for one reason or another have tackled usability and user experience from a pure quantitative methodological perspective involving for example surveys (e.g. Agarwal & Venkatesh 2002; Loiacono 2002; Palmer 2002; Torkzadeh & Dhillon 2002). However, according to the definition presented in Chapter 2.3, user experience is ontologically multidimensional and consumers when shopping online are influenced by various factors related to both the website and the user. This in turn calls for efforts to uncover usability and user experience related problems through the employment

of suitable methods to capture such multidimensionality and to study individuals using real websites instead prototypes as has been commonly the case.

Some design-oriented authors (Wiklund-Engblom & Högväg 2014) recommend that although *user experience* and *usability* are two relatively different aspects of humans in interaction with technologies which imply to be studied by employing different methods and instruments, the use of mixed research methodologies is nevertheless one option that should not be discarded. Such recommendation is partly based on the fact that usability and user experience works have been carried out within engineering, technology design, HCI, and cognitive psychology disciplines and therefore expanding knowledge using methods from other theories and research traditions is certainly not wrong (Holmqvist et al. 2011: 70). A mixed methodology consisting of a combination of quantitative and qualitative research techniques is employed here and these are following described.

3.2 Research methods

From a research methodology perspective, user experiences can be divided into the pre-experience, the actual experience, and the post-experience. Several experts (e.g. Nielsen 2000: 11; Wiklund-Engblom & Högväg 2014: 161) emphasize that the goal of product and technology designers is to create positive experiences for ultimate *users* and thus the focus of research should be on tackling users' needs or problems rather than taking an artistic or structural approach to it. In this thesis, the aim is to investigate the purchasing experience as perceived by online shoppers with the purpose of uncovering website usability related problems valuable for e-commerce firms and online marketers. Therefore, the core phase of investigation here is on the *actual experience* as it occurs.

According to Wiklund-Engblom and Högväg (2014: 167), to capture the various aspects of users' experiences the following basic questions should be answered in an investigation (see Table 3): What did they do? How much action/reaction took place? Why did they do or think so? Who are they? To fruitfully answer these questions, both quantitative and qualitative research techniques should be used in order to gather objective and subjective

types of data from research participants. Here, observations and an eye tracker device were used to collect objective data whereas questionnaires and semi-structured interviews were employed to collect subjective data.

Table 3. Methods Matrix illustrating types of mixed data (Wiklund-Engblom & Högväg 2014: 167).

Types of data	*Qualitative Data*	*Quantitative Data*
Objective Data	What did they do?	How much reaction and action?
Subjective Data	Why did they do/think?	Who are they: Identity & Attributes?

To clarify the research problems of this thesis a small scale non-experimental design also called *quasi-experiment* with cross-sectional characteristics was undertaken. Experimental design is a social science research approach commonly employed to identify causal relationships between variables (dependent and independent) by having at least two different randomly assigned groups: one that receives the treatment and one that does not. A similar approach lacking the rigid level of control or randomization is known as non-experimental design or quasi-experiment (Bryman & Bell 2011: 437; Duchowski 2017: 205). In the present study, a booking task was asked individuals to perform on two different travel websites. Simultaneously, an eye tracking technique was used to record individuals' eye movements or scan paths as they performed the booking tasks on the websites. The device used was a Tobii T120 eye tracker controlled from a HP Compaq 8200 computer and using Internet Explorer. Also, the eye tracker was able to produce quantitative data such as when the eye looks at something (fixations), the order of eye movements between these fixations (saccades), and time spent in areas of interest (AOI), among other metrics (Wiklund-Engblom & Högväg 2014: 168).

Moreover, to complement and validate the objective data, a set of subjective 5-point Likert scale type of questions measuring participants' perceptions and overall user experience (adapted from Duchowski 2017: 235 and Lee & Kozar 2012) with the websites studied in relation to *Navigability, Content Relevance, Learnability, Functionality,* and *Simplicity* were asked to complete. Besides these metrics, such questionnaire also contained questions

related to demographics, familiarity with the website and frequency of online shopping of participants. This was immediately followed by a brief face-to-face interview containing five open-ended questions to gather verbal retrospective evaluations of participants and this was also recorded (see Appendix 1 & 2 for the full questionnaire and the interview guide). A description of the actual booking task and the procedure used in the data collection are presented next.

3.3 Tasks and procedures

According to Nielsen (2010: 35), three are the most important methodology criteria for producing valid results from usability studies: 1) having representative users, 2) that perform realistic tasks, 3) on various web sites. As indicated above, the research problem was approached through an explorative study with cross-sectional characteristics. This means that in order to identify web usability issues of online shopping, a 2x2 four-group design was employed using two different tasks each having different levels of complexity (Bryman & Bell 2011: 53; Duchowski 2017: 209). Booking tasks were named *Scenario S* (Short) for a rather simple task and *Scenario L* (Long) for a more complex one. Such research design enabled to make comparisons across websites and between subjects by allocating participants into groups and then asking each group to evaluate website A or B through the completion of one of the booking tasks S or L. No predetermined criterion was employed when assigning individuals a task but rather as the researcher saw convenient in order to complete equal number of participants in regards to gender, task types, and websites to evaluate. First, two small groups performed Scenario S which were used as a base of reference for task complexity levels, and then two large groups performed Scenario L.

The websites of two ferry lines were used in this study: Eckerö Line (*eckeroline.fi, eckeroline.com*) and Viking Line (*vikingline.fi*). These ferry lines along with Tallink Silja Line are three of the major ferry lines operating passenger and cargo services in the Baltic Sea between Sweden, Finland and Estonia besides other nearby destinations (Mäemets

2017). When Finnish residents travel abroad for leisure purposes, Estonia rank among the top destinations and travelling by boat is the second most used mean of transportation after air travel. By boat they travel almost in equal proportions to Estonia and Sweden including same-day trips (Statistics Finland 2018a). Thus, research participants were given the choice to perform the task in either *eckeroline.fi* or *vikingline.fi* as if they would be making a real life booking/travel choice (*eckeroline.com* was also used in some cases since *eckeroline.fi* was not a multi-language site). The used scenarios are described below.

Scenario S:

> Imagine that you need to take a small break the beginning of next week (Monday/Tuesday) and you want to go to Tallinn, Estonia for a day cruise. You want to spend some hours in Tallinn doing some shopping and then return to Helsinki. You are asked to do the following:
>
> •Go to any ferry line's website* and book your trip with the following itinerary for Monday 1 or Tuesday 2 of October for one passenger.
>
> Leave Helsinki: morning before 12:00. Return to Helsinki: same day around midnight.
>
> Find the lowest priced trip.
>
> Book the trip (one adult) and complete the details only till the phase where your booking is confirmed and ready to be paid but do NOT pay it. You can use fictitious data to fill the forms if you wish.

The core idea of the above scenario was to collect data to be used as a base for comparison between the *levels of complexity of booking tasks* (RQ4). In order to keep the task as real as possible, research participants were given some freedom to choose between the ferry line and the schedule of the trip to book (dates were updated on the second week of collecting data to Monday 8 and Tuesday 9 of October).

Scenario L:

> Imagine that you need to take a small break in the coming weeks and you want to go to Tallinn, Estonia for one night with your best friend in November. You and your friend want to relax in Tallinn and perhaps do some shopping in the city and have dinner before returning to your hotel room. So, you are in charge of arranging the trip as follows:
>
> •Go to a ferry line's website* and book the trip for 2 persons for November 11.11-12.11.2018 with a hotel night.
>
> You also want to enjoy the ferry journey and have lunch in the boat so you DON'T want to take express trips. Your hotel should be centrally located within walking distance not far from the Old Town.
>
> Your final booking should include: 1) the boat trip including return, 2) a pre-booked breakfast or lunch in the boat in both ways and, 3) one hotel night in a standard room for two adults with breakfast included.
>
> You main goal is to find the lowest priced trip for you. (Note: there is a prize for the participant who finds the lowest priced trip!). Time to complete the booking: 40 minutes
>
> •Complete the details only till the phase where your booking is confirmed and ready to be paid but do NOT pay it. You can use fictitious data to fill the forms.

This Long Scenario was the main task used in the study's setting which was expected to produce rich data useful to answer the research questions related to web usability during *product selection* (RQ1), *booking completion* (RQ2), the overall perceived *user experience* (RQ3), and changes in *task complexity* (RQ4). As can be read, this latter task was more complex than the previous one for the following reasons: this was a two-passenger trip, a centrally-located hotel had to be found and included in the booking, a meal had to be pre-booked in the ferry journey, and express trips lasting less than two hours were to be avoided. In general, tasks containing a few criteria are considered simple whereas tasks containing several criteria are considered complex (Anckar & Walden 2002; Leuthold et al.

2011; Wang et al. 2014). Moreover, considering the complexity of the task and the time resulting of a pilot test (13 minutes), participants were given enough time (40 minutes) to avoid mental pressure assuming that in a real case scenario travel booking is often a planned activity which is commonly done with sufficient allocated time. In addition, considering that price is one relevant factor to book a trip online instead of with the help of a travel agent, the chance to win a prize was also given to participants to find the lowest priced trip.

Research participants were verbally explained of the corresponding task to perform on the website and were also told in advance that questions were going to be made afterwards regarding the task. Characteristics of the participants and the companies used in the case are explained below.

3.4 Participants and cases

Students were recruited at Arcada University in Helsinki from 1st to the10th of October 2018 and invited to take part in the study. Movie tickets were offered to them in order to encourage participation. They were briefly told they would perform a task on a website and afterwards some questions were going to be made. An attempt was made to have equal number of both male and female individuals. Also, to maximize the quality of the eye tracking data, care was given to avoid inviting individuals wearing glasses or extremely long and thick eyelashes (Holmqvist et al. 2011: 120). In the laboratory, students were again explained about the task and also a paper copy of the task was given to them for reference. They were also told that the researcher would remain in one side of the room to provide further assistance if needed.

In total, 30 students participated with the majority of them being bachelor level students with Finnish nationality. They were given the chance to select a website in a language of their preference. 21 of them chose a website in Finnish and the remaining chose Swedish (5 participants) and English (4 participants). After a thorough revision of the quality of the results, the data of two individuals were discarded because they wore eye glasses when performing the task and their gaze sample were too low (15 and 7 percent), another

participant's gaze sample measured one percent and was also discarded. One participant's ratings given in the questionnaire consisted of purely 1s and 2s and in the interview it was difficult to get rich answers and so this data was also discarded. In one final exercise the website presented errors several times during the hotel selection process and the task was unable to get completed and thus was excluded. This resulted in data collected from 25 individuals useful for analysis (see table below).

Table 4. Resulting participants in the study.

Tasks	**Eckerö Line's website**	**Viking Line's website**
Simple task	2 (males) Codes: E9, E15.	3 (2 males, 1 female) Codes: V2, V19, V23.
Complex task	10 (6 males, 4 females) Codes: E1, E5, E7, E13, E20, E26, E27, E28, E16, E30.	10 (5 males, 5 females) Codes: V3, V6, V10, V14, V17, V18, V21, V22.

Most of all these individuals were young adults falling within the ages of 18 and 30 years old. About half of them said they make a booking on these ferry lines' website two or three times a year while the other half said they have never used these websites before. Most of these participants (75%) said that on average they book travel or tourism services online every three months and about the same amount of them said they buy products online every two months or less (See Appendix 1 for the full questionnaire used). Thus, although not all participants had previously used *eckeroline.fi* or *vikingline.fi*, most of them were somewhat familiar with online shopping and with booking trips online. The next part contains and describes in detail the data collected.

PART 4: RESULTS

In this part, results of the booking tasks research participants performed in Eckerö Line and Viking Line's websites are described. These results are presented in four different parts in the similar order to that of the research questions. That is, Product Selection constraints (RQ1/Chapter 4.1), Booking Completion constraints (RQ2/Chapter 4.2), Overall User Experience (RQ3/Chapter 4.3), and Booking Task Complexity (RQ4/Chapter 4.4). Simple task's results are only discussed in the last chapter on Task Complexity. Each chapter disseminates the quantitative data collected while integrating relevant qualitative data and concludes consolidating them to answer each research question.

4.1 Usability constraints during product selection

This chapter presents the empirical data collected during the product selection phase of the booking task. To begin, a description of the Efficiency and Effectiveness data recorded by the eye tracker is explained.

4.1.1 Time and errors

Objective quantitative data captured by the eye tracker related to Efficiency (speed or time to complete the task) and Effectiveness (correctness of task or errors committed) while participants performed the bookings are described in this section. The focus here is on the Product Selection sub phase which includes all the actions participants took before turning to the confirmation and payment pages or Booking Completion part (this latter phase is covered in Chapter 4.2).

Errors or task errors are defined here as steps that participants or *users* voluntarily fail to perform and which consequently lead them to (partially or fully) exclude booking items and thus the task's contents as specified in the description did not match. Partially excluded item means that an item was added after the participant noticed the error and corrected it but this nevertheless affected the fulfilling of the task or it was incomplete. Errors caused by the system such as website's failures (e.g. 404 error, display error, navigation error) or additional voluntary booking attempts are not included in this definition. To ensure reliability and clarity of the data, the time incurred by any system/navigation error was discounted from the Efficiency data included in the analysis.

Results were varied among the 10 individuals who participated in the Eckerö Line exercise. 3 of them spent around 5 minutes, one spent 7:15 minutes, 2 others around 8 minutes and the remaining between 9 and 15 minutes. The average time spent in this booking phase on *eckeroline.fi* was 9:22 minutes. Regarding their effectiveness, 3 out of 10 participants did not commit any error, 4 of them had one error, and 3 of them made 2 errors.

Typical errors committed were: having chosen a ferry-only or same-day trip without the hotel and failing to add a meal to the booking either on the outbound, on the return trip, or both (Table 5). Participant E1 spent the shortest time (5 minutes, one error) whereas participant E5 spent the longest time in this phase (15 minutes, 2 errors).

During the Viking Line exercise, the results were more dispersed among the 10 participants. Efficiency values ranged from around 3:50 minutes to 10:15 minutes. The average time spent in the selection subtask was 7:15 minutes and the average number of errors was 2.3. Every participant committed at least one error and the most common errors were failing to add the on-ferry meal required in the booking and having wrongly chosen a Club members-only trip or ferry/cruise-only trip. Participant V25 spent the shortest time in this subtask (3:50 minutes, 3 errors) whereas participant V3 spent the longest (10:15 minutes, 2 errors).

Table 5. Efficiency and Effectiveness data observed during the Product Selection phase.

Website	**Average product selection time** (minutes)	**Average number of errors committed**	**Common task errors**
eckeroline.fi (N=10)	9:22	1	Ferry or cruise only chosen On-ferry meal missing
vikingline.fi (N=10)	7:15	2.3	On-ferry meal missing Club members-only trip chosen

There are several explanations for participants' Efficiency and Effectiveness levels reached on this phase by other participants and these are summarized in the section after analyzing the data presented below on usability ratings.

4.1.2 Perceived satisfaction with website's usability

As explained in Chapter 2.6, the usability elements under study in this research were *Navigability, Content Relevance, Learnability, Functionality*, and *Simplicity* and most of these elements measured participants' level of satisfaction with using the websites during the booking tasks. As was also mentioned, some of these elements and their respective metrics fall within the Product Selection phase while others in the Booking Completion phase. A 5-point Likert scale was used capturing opinions along the lines of 1=strongly disagree, 2=disagree, 3= neutral, 4=agree, and 5=strongly agree. Answers given by participants on the Product Selection part of the questionnaire afterwards are summarized here (see the full data collected in Appendices 3 and 4). Metrics included in this part were related to *Navigability, Content Relevance, Simplicity* and *Learnability.*

The following remarks can be made from the data collected (see Table 6). Most Eckerö Line participants agreed with the statement on *Navigability* and no one disagreed with it. The mean value of the 3 questions on *Content Relevance* ranged from 3.1 to 3.5 and these results were influenced especially by the negative responses given by two individuals: participants E5 and E13. In the interview, participant E5 commented:

"I didn't like the website. I think it was really clumsy. It was easy to find the products but no price was shown before choosing the hotel room, I had to cancel everything if I wanted a better price and this was tedious. If you don't have patience, this might be a deal breaker… I got pretty much annoyed by it."

Table 6. Usability responses given regarding the Product Selection phase (5-point Likert scale: 1=strongly disagree, 2=disagree, 3= neutral, 4=agree, 5=strongly agree).

Website	***eckeroline.fi*** (N=10)			***vikingline.fi*** (N=10)		
Question	Disagree (answers 1 or 2)	Mean	Mode	Disagree (answers 1 or 2)	Mean	Mode
Q10: It was easy to find different travel product options on this website (*Navigability)*	0%	4.0	4	20%	3.8	4
Q11: It was easy to find additional information regarding each product option (*Content)*	20%	3.5	4	10%	3.5	3 & 4
Q12: The information (help, on-screen messages, tool-tips, etc.) provided was clear *(Content)*	30%	3.1	4	0%	3.5	3
Q13: The information was effective in helping me choose the right product *(Content)*	20%	3.4	4	0%	3.9	4
Q14: I was able to make product evaluations quickly using this website *(Simplicity)*	40%	2.8	2 & 3	10%	3.7	4
Q15: When I made a mistake using this website, I could recover easily and quickly *(Learnability)*	20%	3.2	3	10%	3.8	3, 4, 5
Q16: This website gave useful error messages that clearly told me how to fix problems *(Learnability)*	40%	2.6	2	20%	2.9	3

It was also observed in this phase that there were hotel room availability limits for participant E13 in all the four attempts he made and in the end he booked a mini cruise trip (ferry-only). The comments he made afterwards were that "I didn't get the timetables that I want, I didn't get the hotel that I wanted, and I was pushed to take another option". The highest rating this last participant gave was 3 to *Navigability*. Other respondents' comments regarding issues faced in this phase were (see Figure 5):

- "I would have want to have the hotel prices there so I can immediately see… it was maybe not basically the clearest thing when booking and that's of course a relevant thing" (Participant E7).
- "I did not find hotel prices, otherwise (it was) fine" (Participant E30).

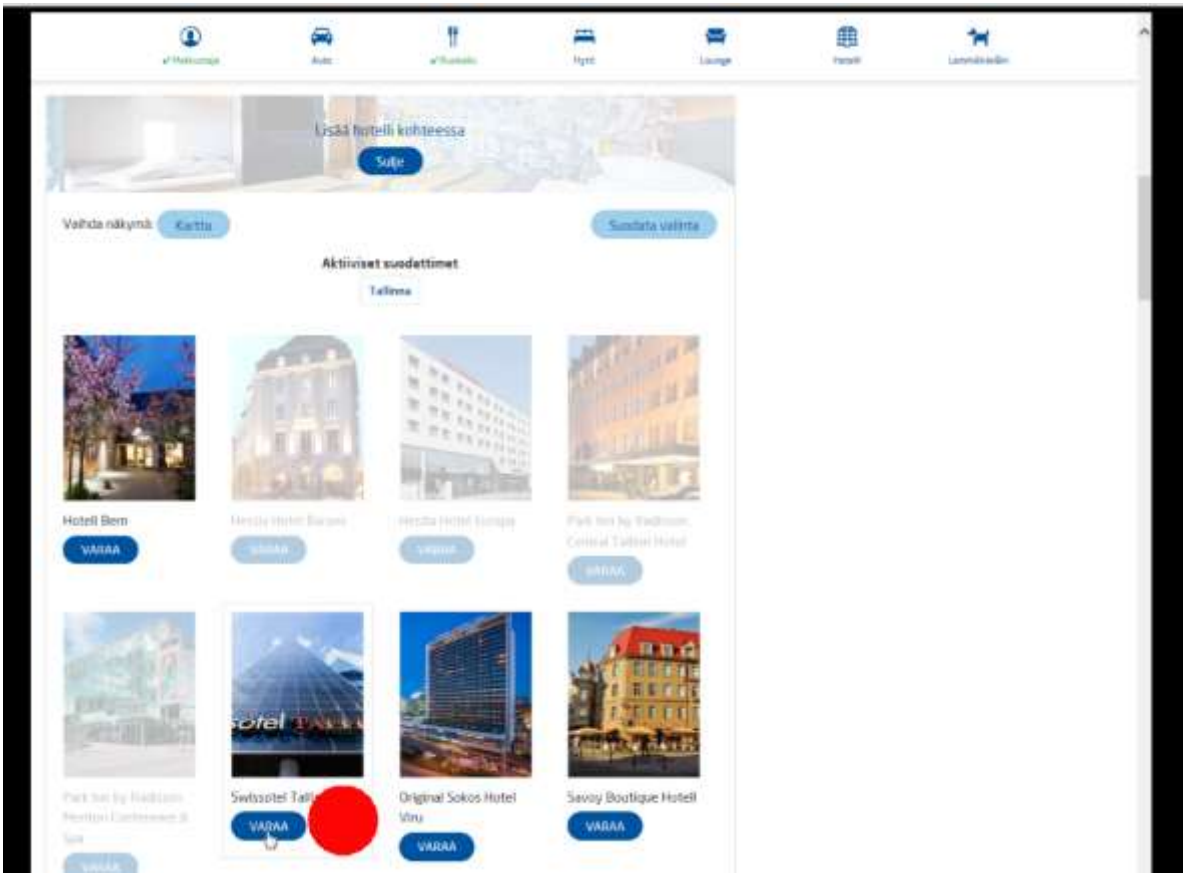

Figure 5. Participant's gaze the moment she browsed hotels on eckeroline.fi where no prices were given.

In spite of this, most agreed with the statement "The information was effective in helping me choose the right product" however 20 percent of them disagreed with it. Ratings toward *Simplicity* and *Learnability* were rather neutral by the Eckerö Line group with the last question "This website gave useful error messages that clearly told me how to fix problems" having received rather low ratings (mean=2.6, mode=2).

On *vikingline.fi*, most usability elements received values above average by research participants in this first phase. Similar to the Eckerö Line group, 60 percent out of 10 participants agreed with the *Navigability* metric yet 20 percent disagreed with it. Only 10 percent disagreed with one of the statements on *Content Relevance*. There were no mode values lower than 3 and as with the Eckerö Line case, the last question on *Learnability* "This website gave useful error messages that clearly told me how to fix problems" received the lowest rating (mean=2.9, mode=3). The comments in the open interviews made by some participants were:

- "I would not have used this website, I would have taken the cheapest trips (here) and then the hotel/hostel from the internet… or I would have used more time to check the values" (Participant V14).
- "Because I have not booked a cruise in a long time, or used this website… I was a bit confused between selecting hotel and then trip or selecting the trip and then the hotel. I had to go back to the main page and do the process all over again" (Participant V29).
- "I think normally when you choose an option A or B there should be a price so is easy to compare. Because now it just gave the option A or option B but you weren't sure which one you wanted because you didn't see the price" (Participant V10).

4.1.3 Data consolidation – research question one

In this section, a concluding analysis of the usability perceptions had by research participants is discussed. The aim here is to answer the first research question of the thesis:

What are the main web usability constraints customers encounter while selecting a travel product online? Such conclusion is done by extracting the most relevant factors displayed in the subjective and objective data collected.

On *eckeroline.fi*, half of the participants (3 males, 2 females) suggested that the website showing the prices of hotels in advance could have made the task easier and faster to complete. It is important to note that 40 minutes was given to participants to carry out the task and so it can be said that there was no time pressure put on them. A male participant suggested that the map format was an issue that made it difficult and unclear to choose a hotel.

Regarding usability, without taking into account slowness (or speed) for being an issue that depends also on the hardware, connectivity, and other aspects external to the website, elements rated negatively were Content Relevance (by 3 participants), Simplicity (by 4 participants) and Learnability (by 4 participants), and thus can be considered here as critical issues that could have helped participants in the task of selecting items for a trip or making a travel package easier and faster (see Table 7).

On *vikingline.fi*, one female participant expected to have the prices of hotel packages displayed in order to save time and avoid useless exploration. Another wanted the website to display hotel options according to prices by default (she perhaps did not see the drop down menu to do this herself in one click). Someone else wished to have an easier way to know immediately the location of hotels while some other mentioned that he was confused and wasted time exploring ferry timetables and hotels perhaps indicating that too many options were confusing. One female participant suggested that in order to get the lowest price she could book the ferry trip on *vikingline.fi* and look for the hotel in an external website. Thus, usability elements rated negatively during this selection phase on *vikingline.fi* and related to these cited constraints were Navigability (by 2 participants), Content Relevance (by one participant), Simplicity (by one participant), and Learnability (by 2 participants).

Table 7. Usability constraints mentioned regarding the Product Selection phase.

Case	Number of participants	Constraints faced	Critical usability metrics
eckeroline.fi (N=10)	1	Slowness	Content Simplicity Learnability
	5	Hotel price not shown	
	1	Hotel options format (map)	
vikingline.fi (N=10)	2	Price of package options not given	Navigability Content Simplicity Learnability
	1	Hotel options display format	
	1	Hotel's location unclear	
	1	Confusion between choosing hotel or trip first	

To conclude, and to answer the first research question, depending on characteristics of the website when selecting a travel product online users/customers' usability is first and foremost influenced by Content Relevance issues concerning the booking task at hand; secondly, by the website's Simplicity of displaying such information or content; and thirdly, by the extent to which the website facilitates the user/customer to navigate around the website and helps him (with minimum effort) in learning to find the required information to complete a booking task.

4.2 Usability constraints during booking completion

In the previous chapter a detailed account of the data collected concerning the Product Selection phase (RQ1) on the websites studied was given. This chapter concentrates on the Booking Completion phase (RQ2). The description of the task did not require participants to take extended actions besides completing booking details till the phase where the booking was confirmed and ready to be paid but actually not paying it.

4.2.1 Time and errors

The definition of time and errors explained in Chapter 4.1.1 also applies here. As mentioned previously, participants were required to enter the required passenger details and to confirm the information of the trip as in a real purchasing scenario. The task was therefore stopped just before going to payment method page.

As can be seen from the table below, in the complex task group on Eckerö Line's website the average time spent on the Booking Completion sub phase was 3:13 minutes. Participant E26 spent the shortest time in this sub task (2 minutes) whereas participant E28 spent the longest time (4.50 minutes). None of the 10 individuals who took part committed task-related errors.

Among the 10 individuals who participated in the exercise on *vikingline.fi* one of them (V3) did not finalized the booking and this was counted as user error. The average time spent among the remaining participants in the final part of the task was 3:40 minutes being the shortest time 2:10 minutes (participant V10) and the longest time 6:00 minutes (V25). Besides participant V3, there were no major errors committed by all other individuals in this phase. By simple comparison, the Viking Line group spent about half minute in average longer in completing the booking than the Eckerö Line group.

Table 8. Efficiency and Effectiveness data observed during the Booking Completion phase.

Website	**Average booking completion time** (minutes)	**Average number of errors committed**
eckeroline.fi (N=10)	3:13	0
vikingline.fi (N=10)	3:40	0

4.2.2 Satisfaction with website's usability

In the post questionnaire employed, 5 questions covered the Booking Completion phase (see Appendix 1) and these were intended to measure elements of *Content Relevance, Simplicity, Functionality, and Learnability*. In addition, one question covered the issue of price confidence regarding the final booking and the outcomes of this particular question are discussed later in the chapter on task complexity levels (Chapter 4.4). Appendices 3 to 6 provide a more detailed account of ratings given by all participants.

On Eckerö Line's website, most of the 10 individuals who participated in the complex task displayed positive results in almost all metrics on this phase and no one disagreed with the *Content Relevance* metric neither with the one metric on *Functionality* of this phase (Question 17 and 19, respectively). Most statements received ratings above average and the means and mode values were close to 4 with the exception of the *Learnability* statement (see Table 9). This question received the lowest rating and its mean value was 2.7. Among others, participants E7, E20, and E27 were the most dissatisfied with this usability element.

The gaze plots recorded show that participants E7 and E20 encountered an issue in the Booking Completion part. They were entering their telephone number without the country code when the website requires it otherwise. Moreover, after having all the details filled up, participant E20 clicked "Continue" and the error message "Prices do not match. Start your booking again." appeared on top of the screen briefly although on the right hand column the booking details appeared to be correct (see Figure 6). Curiously, this issue was faced by several participants too. Participant E27 did not seem to have faced any constraints in this phase.

In the interview, regarding this phase participant E7 commented when asked about his perception that: "the listing on the right was clear. I'm used to that when I book flights that everything, the information is on the right side". The time he spent in the Booking Completion part was 3:25 minutes. On the other hand, participants E20 and E27 did not mentioned to have faced any critical issues in this phase regardless of what was observed through the eye tracker. They spent in this sub task 3:00 and 3:10 minutes, respectively.

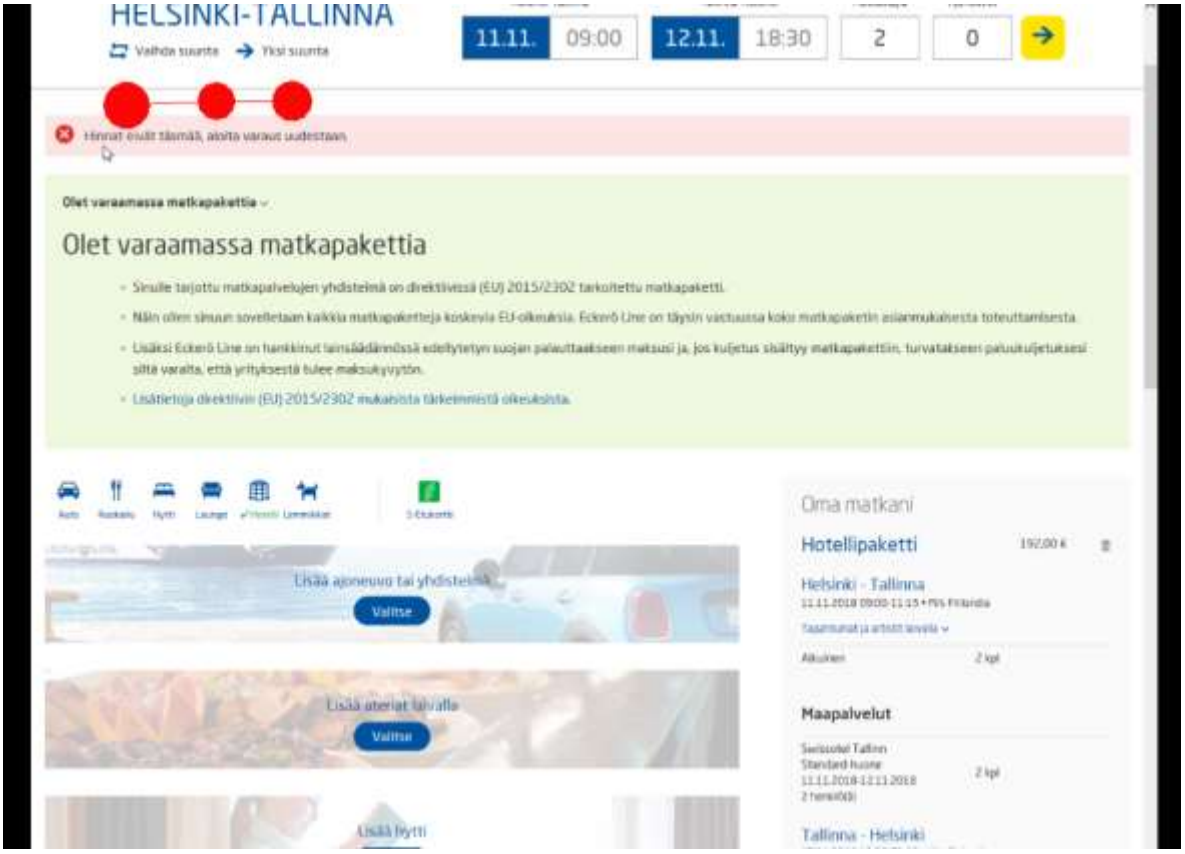

Figure 6. Error message noticed by a participant during the task completion on eckeroline.fi.

Other Eckerö Line's participants said the following when asked verbally about constraints faced here:

- "When filling phone number filling was easy but I was being dumb" (Participant E1).
- "That was ok, it was pretty simple, and easy to follow instructions" (Participant E5).
- "It's really easy, you just choose payment method, it goes quickly, and simple, I feel like the page is very clear" (Participant E26).

Within the *vikingline.fi* group, most individuals appeared to be satisfied with the usability of the site in this phase by displaying mean ratings between 3.4 and 4.5 and mode values of 3, 4 and 5. Nevertheless, when looking carefully at the results, an interesting issue was uncovered. Among all 10 individuals participant V6 was the only one who disagreed on the

Functionality statement (Question 20) "I felt the checkout process required too much personal information". When verbally asked about issues encountered she mentioned "it was straightforward. Maybe they required a lot of information, although it wasn't mandatory so it was fine". She spent 4:30 minutes in this sub phase and made no errors.

Table 9. Usability responses given regarding the Booking Completion phase (5-point Likert scale: 1=strongly disagree, 2=disagree, 3= neutral, 4=agree, 5=strongly agree).

Website	***eckeroline.fi*** (N=10)			***vikingline.fi*** (N=10)		
Question	Disagree (answers 1 or 2)	Mean	Mode	Disagree (answers 1 or 2)	Mean	Mode
Q17: The website's information was effective in helping me complete the booking *(Content)*	0%	3.9	4	0%	4.1	4
Q18: I was able to make the final booking quickly using this website *(Simplicity)*	20%	3.6	4 & 5	0%	4.5	5
Q19: I felt the checkout process of this website was too complicated *(Functionality)*	10%	4.1	4 & 5	0%	4.3	4
Q20: I felt the checkout process of this website required too much personal information *(Functionality)*	0%	4.1	4	10%	3.4	3 & 4
Q21: In the final phase, this website gave useful error messages that clearly told me how to fix problems *(Learnability)*	50%	2.7	1 & 4	0%	3.5	4

Other participants in this group regarding this subtask commented:

- "It's very simple for me… It's very similar to rest." (Participant V10)

- ”It was easy, pretty basic, is pretty much the same as in other (websites).” (Participant V14).
- “It was just to fill in your details… choose to send the confirmation, etc. There was nothing disturbing that could make me quit (the task).” (Participant V18).

4.2.3 Data consolidation – research question two

In Section 4.1.3 a concluding analysis of the subjective and objective data collected concerning the Product Selection phase that answers the first research question was provided. This section concerns the Booking Completion phase and answering of the second research question: *What are the main web usability constraints customers encounter while completing the transaction of a travel product online?*

Most participants did not verbally report major difficulties in this phase on *eckeroline.fi* to highlight here besides what was observed and the responses they gave through the questionnaires. Therefore, one preliminary conclusion is drawn from the issue that 60 percent of individuals were seen to re-enter their phone number in order to do it correctly (e.g. adding +358 before the actual number) and this is something that perhaps affected the perceived usefulness and easiness of *eckeroline.fi* when completing the task. Another conclusion is that the low ratings given to the elements of Simplicity (by two participants), Functionality (by one participant) and Learnability (by five participants) perceived of the website may be due to the short-lasting error messages encountered when completing the booking and which no participant remarked verbally about (Table 10).

Similar to the Eckerö Line’s case, very few or almost no participant in this group verbally reported major constraints encountered in this final phase on *vikingline.fi* with the exception of V22. This individual was affected negatively by the issue of having to add dots when entering passenger’s date of birth (e.g. 14.03.1975) commenting that “what

Table 10. Usability constraints mentioned regarding the Booking Completion phase.

Case	Number of participants	Constraints faced	Critical usability metrics
eckeroline.fi (N=10)	6	Phone number format (country code needed)	Simplicity Functionality Learnability
vikingline.fi (N=10)	6	Passenger's age format (no dots needed)	Functionality

bothered me was the layout of age that you didn't need to have dots". Curiously, the eye movements recorded indicate that some 60 percent of participants experienced this issue which in turn added some degree of difficulty to the task during check out (Figure 7).

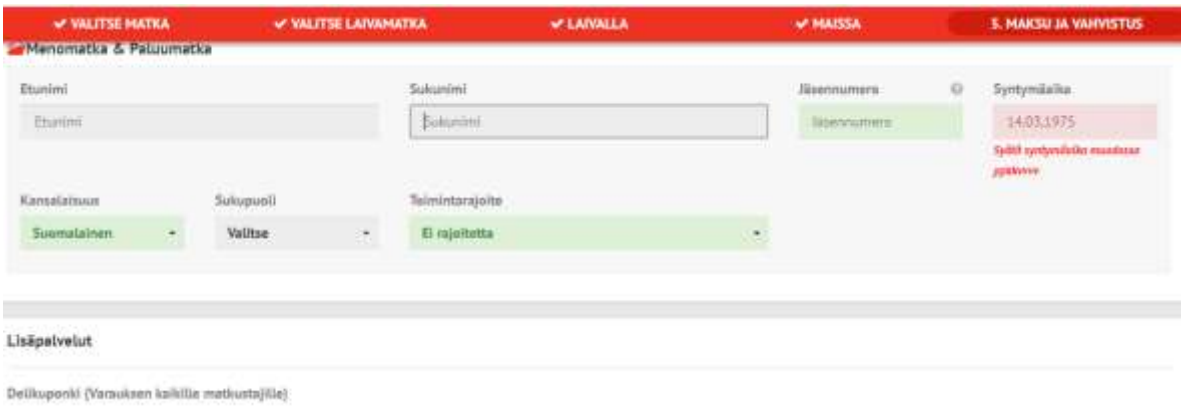

Figure 7. Error message shown on vikingline.fi when entering passenger's data.

Finally, the negative satisfaction rating given to the usability element of Functionality (by one participant) is rather minimal and no other concluding remark can be added here. By comparison, in this phase too, *eckeroline.fi* was perceived by participants to be less usable than *vikingline.fi*. A further analysis of data regarding both sub phases and usability constraints encountered in both websites is made in the next chapter.

4.3 Usability and overall user experience

In the previous two chapters of this part of the thesis empirical data collected that aimed to answer research questions one and two were presented. The focus of the first question was on the selection sub phase of the purchasing stage whereas the second question concerned the final phase where the customer/user confirms and is ready to pay his booking. The third Research Question of the thesis asks: *What is the overall satisfaction and user experience when booking travel products online?* This question's focus is on identifying the overall user ratings of the two websites.

4.3.1 Overall ratings

Part of the questionnaire that was asked research participants to fill up at the end of the exercise contained 7 questions referring to their perceived satisfaction and overall user experience with the website during the booking task (see Appendix 1). In this chapter, the outcomes of these questions are included in the discussion except 2 questions addressing task perception which are left to be discussed in the next chapter.

Participants' self-evaluation of the overall usability of Eckerö Line's website after performing the task displayed the following responses. Mean values ranged from 2.9 to 3.9 and the most given ratings were 4 (see Table 11). Specifically, 80 percent of participants agreed that the website *eckeroline.fi* was easy to use while only 10 percent disagreed that "it was easy to learn how to use it". The interactivity aspect that enhances usability to the website when completing the task (Question 27) was perceived rather mediocre and only 40 percent gave positive ratings to this question.

Both, the aesthetical part and the overall user experience were satisfactory for 80 percent of individuals and the mean ratings given were 3.8 and 3.9, respectively. No one disagreed with *eckeroline.fi* being visually attractive. Only one participant (E5) among all rated negatively the overall experience statement while another was neutral to it. When asked to *name 2-3 usability issues that would influence his decision to complete the booking or to*

stay/leave the website participant E5 referred again to the issue of difficultness faced while finding hotel prices and his answer to the open question on the perceived overall experience was that "(it was) ok, nothing great, pretty usual". Similarly, answers given to this question by other participants were:

- "I could not compare the (price) of hotels" and "I could not see the prices of hotels before choosing" (Participant E1).
- "It could have been easier if the hotel prices were shown" (Participant E27).
- "It was hard to find the best price because you could not see immediately the hotel prices"… "That's why I always book the ferry and the hotel from different websites." (Participant E16).

Concerning the Viking Line group, overall experience values ranged from 3.5 to 4.2 and the ratings were all higher or similar than in the Eckerö Line group with the exception of the statement "This website was visually appealing to me" (Question 28) which was slightly lower (mean 3.6). Specifically, participants V25 and V29 disagreed with such statement. In spite of this, 90 percent were satisfied with the overall booking experience on *vikingline.fi* and no participant rated it negatively. Also, no one disagreed on the easiness to learn how to use the website. Comments to the open question "How is your overall experience with using this website?" by participant V25 were "that I don't like the red… I don't like (it) the layout that much… is very bubbly" while participant V29 mentioned that "I don't like the interface… is a little bit confusing… they should make it really appealing if you are booking a cruise, or a hotel plus a trip, or only a trip."

Other participants, although said to have had an overall positive experience with using the website, made the following replies when asked about issues that could have influenced their decision to leave the booking unfinished on *vikingline.fi*:

- "They could have the prices already shown when you see the packages to quickly see which the best is… so you don't have to go through many pages to find it" (Participant V17).
- "In the beginning didn't see the prices of the packages. You saw it only when choosing it. Probably then (I would)." (Participant V18).

Table 11. Responses given on websites' overall perceived usability (5-point Likert scale: 1=strongly disagree, 2=disagree, 3= neutral, 4=agree, 5=strongly agree).

Website	***eckeroline.fi*** (N=10)			***vikingline.fi*** (N=10)		
Question	Disagree (answers 1 or 2)	Mean	Mode	Disagree (answers 1 or 2)	Mean	Mode
Q23: It was easy to use this website *(Learnability)*	20%	3.8	4	10%	3.9	4
Q24: It was easy to learn how to use this website *(Learnability)*	10%	3.9	4	0%	4.2	4
Q27: The interactive features of this website (e.g. live feedback) made it easy to complete the task *(Learnability)*	20%	2.9	3 & 4	10%	3.5	3
Q28: This website was visually appealing to me *(Content/aesthetics)*	0%	3.8	4	20%	3.6	4
Q29: Overall, my booking experience with this particular website is positive	10%	3.9	4	0%	3.9	4

4.3.2 Data consolidation – research question three

This concluding section presents an overall comparison of both cases studied regarding the usability and user experience had by research participants within the context of the task given.

As the data shows above, in overall, Eckerö Line's website exhibited slightly more usability constraints than Viking Line's website. This is seen in the ratings given by

participants individually, in aggregation, and also when verbally asked about the difficulties they faced in the process.

Consolidating the quantitative with the qualitative data, *eckeroline.fi* and *vikingline.fi* were perceived to have various levels of usability and user experience. On the one hand, Eckerö Line was perceived difficult among participants during the booking task taking into account that it was a price-conscious travel booking exercise. Individuals struggled to book a low priced travel package because they could not easily see the hotel prices unless they "book" or select a hotel first and in order to make changes in the package they had to cancel the booking and start all over again. In both phases of the task, and especially in the product selection part, *eckeroline.fi* was perceived as lacking simplicity. However, it was perceived to be more navigable and more functional than *vikingline.fi*. Perhaps the country code required to be entered in the passenger's telephone number was a minor issue that affected little the experience of participants.

On the other hand, Viking Line was perceived to have unlimited amount of options and features for users/participants to book a trip and perhaps more than in Eckerö Line's website. Individuals did not struggled much on *vikingline.fi* to do their booking and instead they expected to be able to make price comparison easier among hotels and travel packages on the spot. As was observed, the first type of comparison was possible to do without limitations. The second one, comparing prices of travel packages, was seen problematic by some participants since they could not see price hints of these unless they navigated further and found more information. One minor usability issue observed in the booking completion phase on Viking Line was the age format in the passenger's details that rejects dots in between and half of participants had to re-enter this information. To this end, *vikingline.fi* was perceived to be simpler and better in several usability elements than *eckeroline.fi*, yet perhaps the site was perceived by some participants to be overloaded with content, features and travel options and these affected slightly their overall experience.

4.4 Usability and task complexity levels

In the previous chapter, a summary of the most relevant usability and user experience elements that research participants reported while completing the tasks on *eckeroline.fi* and *vikingline.fi* was given. The previous chapters dealt with three research questions of the thesis regarding product selection, booking completion, and overall booking experience. In this chapter, the fourth and last research question stating: *Are there differences in usability constraints perceived between simple and complex booking tasks?* is answered.

4.4.1 Simple and complex tasks' results

As seen in Table 12, the average time spent in the complex task was about 2 times that spent in the simple task (11:46 versus 5:48 minutes) and no participant in this latter group displayed to have perceived some *time pressure* completing it. Simple task participants' mean value to this metric was 1.15 and the mode was 1. Similarly, most complex task participants did not say to have felt pressured in regards to time (mean=1.90, mode=1) yet 20 percent of them displayed neutral answers.

Concerning *difficulty* levels, although there were more errors seen in the complex task than in the simple task group some degree of difficultness was perceived by both groups of participants. However, the numbers were not critical. In a scale from 1 to 5 (very simple-very hard), simple task participants' mean value was 1.75 and the mode was 1 whereas complex task participants' mean value was 2.1 and the mode was 2.

As previously highlighted, booking prices were lower in the simple tasks than in the complex tasks and for obvious reasons. The average final price among the 5 participants who succeeded in the task for the simpler trip was 16 euros whereas among the 20 individuals of the more complex trip the average price was 171 euros. All participants in the simple task group were *confident* with the final price of their booking (mean=4.3, mode=4) whereas 15 percent or 3 individuals of the complex task group disagreed with being confident with their selected booking price (mean=3.3, mode: 3 & 4).

Table 12. Comparative results between simple and complex tasks (5-point Likert scale: 1=strongly disagree, 2=disagree, 3= neutral, 4=agree, 5=strongly agree).*

Measure	**Simple task** (N=5)	**Complex task** (N=20)
Average time spent	5:48 minutes	11:46 minutes
*Time pressure** Q26: Time to complete the whole task was a pressure for me	Mean: 1.15 Mode: 1 Disagree: 100%	Mean: 1.9 Mode: 1 Disagree: 75%
Average number of errors committed	0.40	1.7
Task difficultness Q25: I think the booking task I completed is: (1=very simple, 5= very hard)	Mean: 1.75 Mode: 1 Simple: 80%	Mean: 2.1 Mode: 2 Simple: 75%
Average booking price	16 euros	171 euros
*Price confidence** Q22: I am confident with the final price of the booking I completed	Mean: 4.3 Mode: 4 Disagree: 0%	Mean: 3.3 Mode: 3 & 4 Disagree: 15%
Overall usability ratings*	Mean: 3.9 Mode: 4	Mean: 3.7 Mode: 4

4.4.2 Data consolidation – research question four

Thus, to answer the fourth research question of this thesis, there were differences in the usability elements observed and reported between simple and complex booking tasks. Usability constraints did vary among low and high complexity booking tasks and these were the following:

- Usability rating differences between simple and complex tasks were larger in the Product Selection phase than in the Booking Completion phase.
- In general, simple task participants spent less time and were more confident with the price of their booking than complex tasks participants.

As expected, simple task participants (5 individuals) spent less time with the task, committed less errors and their final booking prices were lower than the complex task participants (20 individuals). The results show that there are differences in usability

constraints perceived between simple and complex travel bookings and these are partly dependent on the website, the task at hand and the individual carrying out the task.

Research questions developed in Part 2 of this thesis were attempted to be empirically answered in this fourth part through the employment of the methods described in Part 3. Such research questions dwell upon web usability constraints that consumers encounter when buying travel products online and how these constraints influence their overall satisfaction and user experience. An exercise was carried out by which students were performed two different tasks on two different travel websites and the part just presented disseminated the data collected concerning such exercise in terms of the Product Selection (RQ1) and the Booking Completion (RQ2) phases of the task, the overall perceived Usability and User Experience (RQ3), and the effect of Task Complexity level on usability perceptions (RQ4). The next part deals with main conclusions of the thesis.

PART 5: DISCUSSION AND CONCLUSIONS

The aim of this thesis was to investigate the *usability constraints that customers face when choosing and buying travel products online.* Part of the aim was also to shed light on the differences in constraints encountered, if any, between low and high complexity travel booking tasks. Considering the cognitive-oriented nature of the task given to research participants which was to book a low-priced trip in a given website, the following findings emerged.

Both websites were perceived as having good level of Functionality. In the definition of Constantinides (2004), it means that *eckeroline.fi* and *vikingline.fi* allowed research participants to do basic searching, choosing, browsing, reviewing and confirming the travel booking task (or part of it) without major obstacles. In other words the websites help them to be effective in completing the tasks. However, poor price visibility was an issue that affected the usability of both websites and thus some participants perceived them average in Content Relevance. This was slightly more noticed in Eckerö Line's site than in Viking Line's site because about half of the participants in that group of the complex task had to cancel their booking in order to make changes to their hotel booking price. This result is similar to those of a previous usability study where individuals were asked to simulate the booking of a weekend trip and where the information architecture including prices, costs of items, and package comparison inabilities confused individuals and affected the usability of a travel agency's website (Pan et al. 2011). Despite the price information of packages, hotels, and other items that were given in the websites studied here some participants had to look harder in order to locate them and this affected their user experience. Past research has proven that *content* is the number one thing that keeps website visitors stay online and also influences their buying decisions (Lee & Kozar 2012; Nielsen 2000: 100). Therefore the content of a website should meet the exact needs of the user and what s/he wants to accomplish, easily. In the research carried out here price conscious individuals considered, among other things, price-related content as crucial and this was seen weak in *eckeroline.fi*.

The mediocre perceived information relevancy regarding price visibility and comparison possibilities by some research participants consequently influenced their perceptions on

Learnability and Simplicity of both websites. Again, results in these two usability metrics were slightly more negative in Eckerö Line's case and more positive in Viking Line's case. However, the multiple booking options displayed and rather information overloaded site of *vikingline.fi* did not help perceive it high on Navigability. These findings correspond with the view of some authors attesting that website simplicity is crucial for goal-oriented users (Nielsen 2000), yet sometimes people accept and are willing to tolerate a degree of sophistication of a website which could otherwise perceive as boring since simplicity has indirect effects on perceptions of navigability, learnability, and purchase intentions (Lee & Kozar 2012)

In sum, within the context of travel type used in this study, Content Relevance, Learnability, and Simplicity are the main usability constraints that customers encounter or deal with when making bookings online and these constraints are mainly faced in the product selection phase of the booking task. The transaction completion phase commonly requires less time and effort on the part of users since such phase is designed to be completed in a few steps. For this reason, with perhaps some exceptions, usability constraints in this last phase are minimum or not perceived at all. Further, the usability elements just mentioned contribute to the overall satisfaction of users with a website and to their perceived overall user or booking experience. Some of these elements are more relevant than others and in this context Content Relevance appeared to be the number one issue for price conscious users or research participants. Finally, regardless of price or time involved, simple booking tasks tend to generate less usability constraints for online bookers than complex booking tasks although again the skill and familiarity of the user with the booking task plays an important role in the issues he/she encounters.

5.1 Implications for practice

The above discussion has the following practical implications. It is clear that the websites used in this study have different information structure, layout and design than any other

online travel website naturally because these are different brands serving different target markets/segments having a unique approach to conduct business. However, there are issues that must be reconsidered or evaluated on regular bases by web designers and e-commerce managers regarding the usability and user experience delivered by their travel websites. Some of these issues are more noticeable than others and some are higher in importance than others. Based on the results from this study is possible to highlight key issues for practitioners:

- Call-to-action buttons (add, choose, reserve, go to pay, etc.) and their correct performance must be paid close attention because they inform clearly the user – e.g. through an animated sign, text, icon, or progress bar – that the website is processing an action after users click on them and that they should wait before any reaction occurs. Thus, between subtasks in the websites studied some users/participants tended to click more than one time on call-to-action buttons which in turn created errors messages and lead to further confuse them during her/his task.

- Some travel websites allow the user to make a booking from different starting points: clicking a tab depending on the trip type or starting by entering the dates desired to travel. On the websites studied here, the first option opened a new page with a list of hotels or travel packages while the second option lead to a page containing a list of various items to be added to a trip including hotels. Bookable prices were visible in the first option, however, the second option did not show any price or hint of hotel rates for users/participants and this presented issues for them regarding the relevancy of the content searched for and in the effectiveness of completing a booking task.

- When booking a travel package, customers normally add a hotel and other items to the package. However, if online customers want to make changes in the hotel or room chosen sometimes this is not possible to do on the on-going page unless one restarts the booking from the beginning and this affects the user experience of online bookers. Effectively designed websites must allow online bookers to perform these changes with minimum hassle.

Finally, the amount of information that website visitors and customers have to process in a booking task or online transaction should be kept moderate and balanced. This is important because it might be tiresome for some users to scan through pages and subpages loaded with information during their bookings which then consumes their time and require additional effort on their part to complete a task. Multiple options of travel packages, colorful displays and rich media are indeed essential and keep users engaged with a website, however maintaining the right balance is crucial to deliver an optimal user experience.

5.2 Validity of the study

Methodologically, this study employed a non-experimental design commonly used in quantitative research. This type of design granted the researcher the feasibility of carrying out the study of a self-chosen topic with the resources available. Also, it allowed achieving the aim of the research which was to explore web usability constraints encountered by online users when choosing and buying (or completing the final purchasing step of) travel products or services online. Therefore, the study was evaluative in nature and the aim was not to identify relationship between variables which could have implied a higher level of control in the setting where the investigation took place. However, strictly guided by the literature review on usability studies, research methods' rules and guidelines, and the definition of user experience, this work incorporated also qualitative techniques of conducting research.

Hence, grounded on the assumption that user experience has influential effects in the purchase decision of consumers and taking as a point of departure the stance that usability and user experience are subjective concepts having implications in its measurements, a small group of individuals were asked to complete two different tasks on two websites. Quantitative and qualitative observations, questionnaires and brief interviews were used to measure the multidimensionality of user experience. The data regarding each task was triangulated and then compared among tasks and among websites to identify usability problems encountered by these individuals that in turn enabled to grasp a holistic picture of

user experience perceptions. Such triangulation exercise added validity and confidence to the findings. However, this study is about two particular websites at certain point in time evaluated by people with specific characteristics (i.e. mainly undergraduate students). These latter issues in turn subtract generalizability to the findings and thus make this research to be categorized as mixed methods research guided by the subjectivist and interpretative research paradigms. From the validation perspective, according to the sample size estimation rules described by Turner et al. (2006) for usability testing, all other things being equal, in this investigation the complex task exercise had an adequate number of participants whereas the simple task exercise should have had a higher number of participants.

5.3 Limitations and further research

This study is not without its limitations. The small sample size used in the research (25 individuals) is not representative of the general population of online users and thus from the quantitative methodology perspective this study lacks statistical validity. This implies that care should be used when attempting to generalize the findings to the broader population of online users or travel bookers.

Another limitation is the goal-oriented task that was employed to produce the empirical data. This means that the usability and user experience conclusions drawn from the cases are bounded by the nature of the task given to participants including that they were not allowed to modify anything as they would freely do in real life. A goal-oriented task also indicates that the conceptual definitions of *usability* and *user experience* include other aspects that were excluded here and that would have implied to collect and present different type of data. For example, measures of users' attraction toward some part, content or image on the website (Bojko 2013: 122; Duchowski 2017: 215), interactivity features of the website through the use of chat functions or social media tools (see Huang & Benyoucef 2017; Lim 2015), the effect of supportive recommendation tools (see Chan et al. 2015), and

emotional responses evoked in users by various media enhancements while on the task (see Hausman & Siekpe 2009; Hornbaek & Hertzum 2017; Pavlas et al. 2010) are usability and user experience aspects that must be included in future research.

One more limitation was the technicalities of the study. This refers to the websites used in the study and their hardware and software platforms and tools in which they are built together with their capabilities to operate in "normal" conditions when paired with the eye tracker. Meaning that, although effort was made in part of the researcher to have participants perform tasks in real time in live running websites, some slow loading responses at times occurred and these issues might have influenced the experience and in turn the opinions of research participants. In the future this could be improved by having an especially designed and more powerful computer that could help run the eye-tracking exercises smoothly and without delays.

Another minor yet important issue observed in this research that have implications in the interpretation of the findings were the mismatching of responses given by some participants to questions asked verbally in comparison to the answers they gave on the questionnaire. In this regard, the eye tracking data recorded provided assistance in the triangulation of the responses with the behavior observed in order to make sound conclusions and to truthfully answer the research questions. Future research could address this issue by allocating more time with each participant and implementing the retrospective think-aloud protocol to ask more detailed questions to them while replaying in slow motion the gaze path recordings of the eye tracker.

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APPENDIX 1. Post questionnaire (from Duchowski 2017: 235 and Lee & Kozar 2012)

1. What website did you use? _____ 2. Language used on the website: _____

Your background. *Please give your answer to the followings:*

3. *Gender:* _Female _Male **4**. *Ongoing education:* _Bachelor's _Master's

5. *Age:* _18-30 _31-50 _51+ **6**. *Country of origin:* _____

7. In average, how many times a year you book from the website you just used?
_ 6+ times/year _4-5 times/year _2-3 times/year _Never used

8. In average, how often do you book travel or tourism services online?
_Once a month _Every 2 months _Every 3 months or less _Never

9. In average, how often do you buy other types of products online?
_Once a week _Once a month _Every two months or less _Never

Please circle the response that best reflects your opinion on the website you just used.

During the evaluation/selection phase:

10. It was easy to find different travel product options on this website (*Navigability)*
Strongly disagree ----1---2---3---4---5----Strongly agree

11. It was easy to find additional information regarding each product option (*Content)*
Strongly disagree ----1---2---3---4---5----Strongly agree

12. The information (help, on-screen messages, tool-tips, etc.) provided was clear *(Content)*
Strongly disagree ----1---2---3---4---5----Strongly agree

13. The information was effective in helping me choose the right product *(Content)*
Strongly disagree ----1---2---3---4---5----Strongly agree

14. I was able to make product evaluations quickly using this website *(Simplicity)*
Strongly disagree ----1---2---3---4---5----Strongly agree

15. When I made a mistake using this website, I could recover easily and quickly *(Learnability)*
Strongly disagree ----1---2---3---4---5----Strongly agree

16. This website gave useful error messages that clearly told me how to fix problems *(Learnability)*
Strongly disagree ----1---2---3---4---5----Strongly agree

During the booking completion phase:

17. The website's information was effective in helping me complete the booking *(Content)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

18. I was able to make the final booking quickly using this website *(Simplicity)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

19. I felt the checkout process of this website was too complicated *(Functionality)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

20. I felt the checkout process of this website required too much personal information *(Functionality)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

21. In the final phase, this website gave useful error messages that clearly told me how to fix problems *(Learnability)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

22. I am confident with the final price of the booking I completed
    Strongly disagree ----1---2---3---4---5----Strongly agree

Overall usability:

23. It was easy to use this website *(Learnability)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

24. It was easy to learn how to use this website *(Learnability)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

25. I think the booking task I completed is:
    Very simple ----------1---2---3---4---5---------Very hard

26. Time to complete the whole task was a pressure for me
    Strongly disagree ----1---2---3---4---5----Strongly agree

27. The interactive features of this website (e.g. live feedback) made it easy to complete the task *(Learnability)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

28. This website was visually appealing to me *(Content)*
    Strongly disagree ----1---2---3---4---5----Strongly agree

29. Overall, my booking experience with this particular website is positive
    Strongly disagree ----1---2---3---4---5----Strongly agree

APPENDIX 2. Post interview guide

1) TASK COMPLEXITY: How did you perceive the task (easy/difficult)?

2) SELECTION/EVALUATION: What issues did you perceived difficult when selecting/choosing/making your trip? Why?

3) BOOKING COMPLETION: How easy/difficult it was to complete the booking (e.g. entering data/closing the transaction)? Explain

4) Name 2-3 usability issues that had made you change your decision to complete the booking or to leave this website:

5) How is your OVERALL booking EXPERIENCE with using this website?

Thanks for participating! ☺

APPENDIX 3. Ratings given on Eckerö Line's website: simple task

(Q=question, P=participant, *negative questions were recoded).

Q / P	10	11	12	13	14	15	16	17	18	* 19	* 20	21	22	23	24	25	26	27	28	29
E9	4	3	4	4	4	4	4	4	4	2	2	2	4	4	4	4	1	4	3	4
E15	4	4	3	4	4	3	4	4	4	3	2	2	4	4	4	1	1	3	4	4

APPENDIX 4. Ratings given on Eckerö Line's website: complex task

(Q=question, P=participant, *negative questions were recoded).

Q / P	10	11	12	13	14	15	16	17	18	*19	*20	21	22	23	24	25	26	27	28	29
E1	5	3	3	4	2	4	0	3	4	2	3	4	3	5	5	2	3	0	4	5
E5	4	2	2	1	2	2	4	4	3	3	2	4	4	2	3	4	2	3	3	2
E7	4	4	4	4	2	3	3	4	5	1	1	1	2	4	4	4	2	3	4	4
E13	3	2	1	2	2	1	2	3	1	1	2	2	3	1	2	1	2	1	3	3
E20	4	4	2	4	3	3	1	3	3	1	2	1	2	4	3	2	1	2	4	4
E26	5	5	4	4	4	4	3	4	5	2	1	3	3	5	5	1	1	4	4	5
E27	4	4	3	3	3	4	4	4	4	2	2	1	3	4	4	2	1	4	4	4
E28	3	4	4	4	3	3	5	5	2	4	3	4	3	4	4	1	2	3	4	4
E16	4	3	4	4	4	3	2	4	4	1	2	2	4	4	4	1	1	4	4	4
E30	4	4	4	4	3	5	2	5	5	2	1	5	5	5	5	2	1	5	4	4

APPENDIX 5. Ratings given on Viking Line's website: simple task

(Q=question, P=participant, *negative questions were recoded).

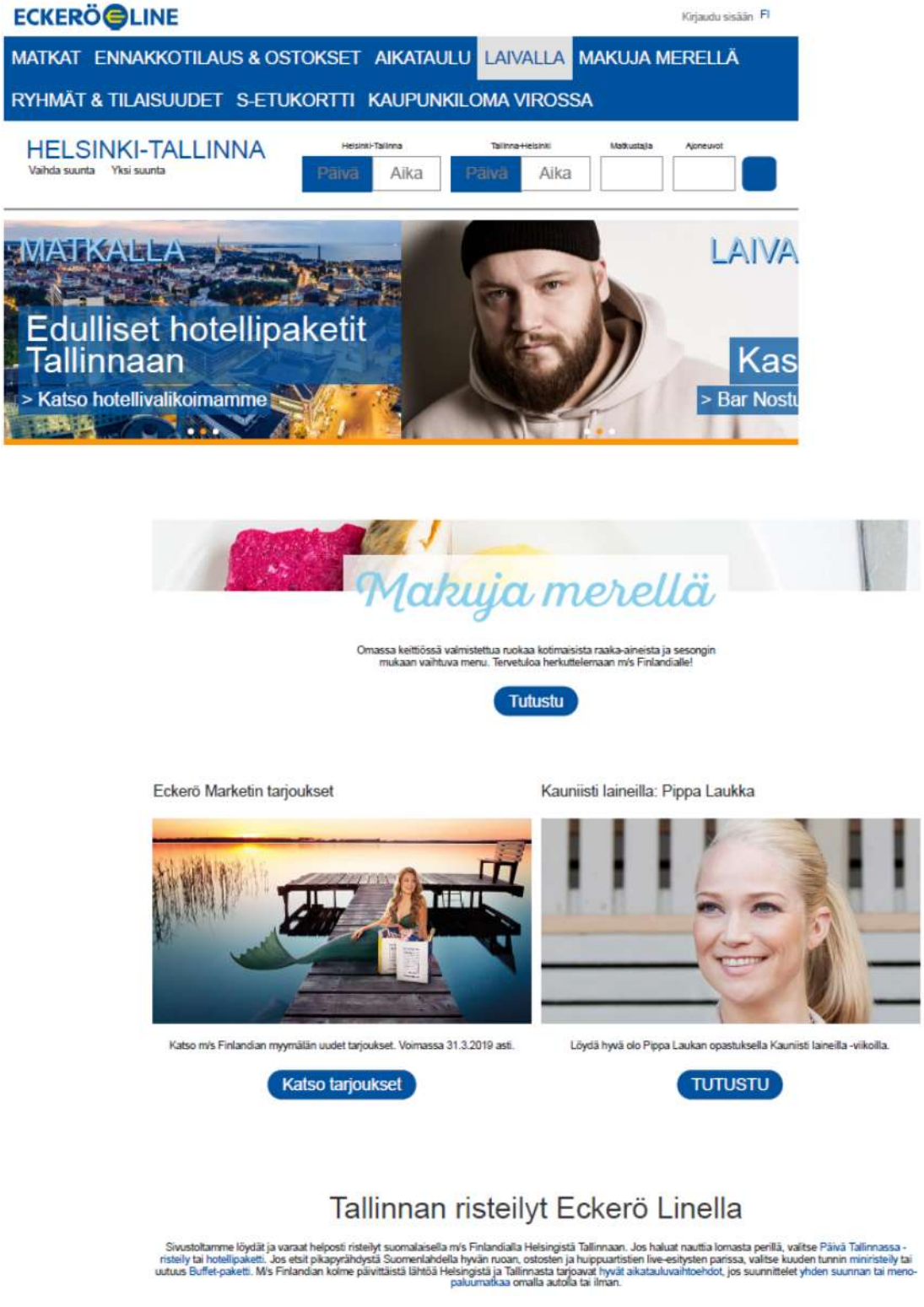
Q / P	10	11	12	13	14	15	16	17	18	*19	*20	21	22	23	24	25	26	27	28	29
V2	5	5	5	5	5	4	3	5	5	1	2	4	4	5	5	1	1	5	4	5
V19	4	4	4	5	3	3	5	4	2	2	1	5	5	4	4	1	2	4	3	4
V23	3	4	4	4	5	5	3	4	5	1	2	3	5	5	5	1	1	3	4	4

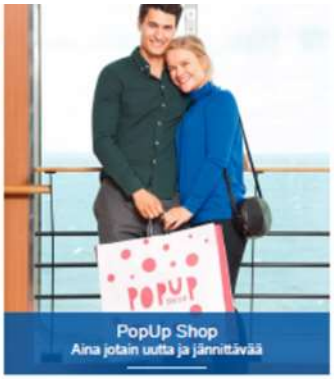
APPENDIX 6. Ratings given on Viking Line's website: complex task

(Q=question, P=participant, *negative questions were recoded).

Q / P	10	11	12	13	14	15	16	17	18	*19	*20	21	22	23	24	25	26	27	28	29
V3	2	3	3	4	3	4	0	4	5	1	1	0	4	2	4	1	2	5	5	4
V6	4	4	3	3	4	5	3	4	5	2	5	5	4	5	4	2	1	3	4	4
V10	5	3	3	4	4	5	5	3	5	2	3	4	3	4	4	2	1	2	4	4
V14	4	4	3	3	3	2	2	5	5	1	3	3	1	4	5	1	4	3	3	4
V17	4	4	3	4	4	3	3	4	4	3	3	3	4	4	4	4	3	3	4	4
V18	4	5	5	5	4	3	5	5	5	1	2	5	4	5	5	1	2	5	3	4
V21	4	3	4	4	5	4	3	4	5	2	2	4	4	4	4	2	3	4	4	4
V22	5	2	4	5	5	5	4	4	4	1	2	4	3	4	5	4	1	4	5	4
V25	4	4	4	3	3	3	3	4	4	2	2	3	4	4	3	2	3	3	2	3
V29	2	3	3	4	2	4	1	4	3	2	3	4	3	3	4	3	2	3	2	4

APPENDIX 7. Eckeroline.fi main page sample (24.1.2019)





Ajankohtaista

Suomalainen Eckerö Line täyttää 25 vuotta – Itämerellä liikennöi nyt uudistunut m/s Finlandia
17.1.2019

M/s Finlandialla riittää säpinää – laiva palaa telakalta liikenteeseen
15.1.2019

Meillä on hyvä olla töissä! – Eckerö Linelle myönnettiin Great Place to Work -sertifikaatti
15.1.2019

M/s Finlandia on telakalla 2.–16.1.2019 (päivitetty 4.1.2019)

Panostamme luomuun laivan ravintoloissa

Olemme mukana Portaat luomuun -ohjelmassa, jonka tavoitteena on edistää luomuraaka-aineiden käyttöä sekä luomuruokien saatavuutta ravintoloissamme.

Tutustu

Luomua
RAVINTOLA
★★☆

Ota yhteyttä

06000 4300
1,75 €/puhelu + pvm/mpm

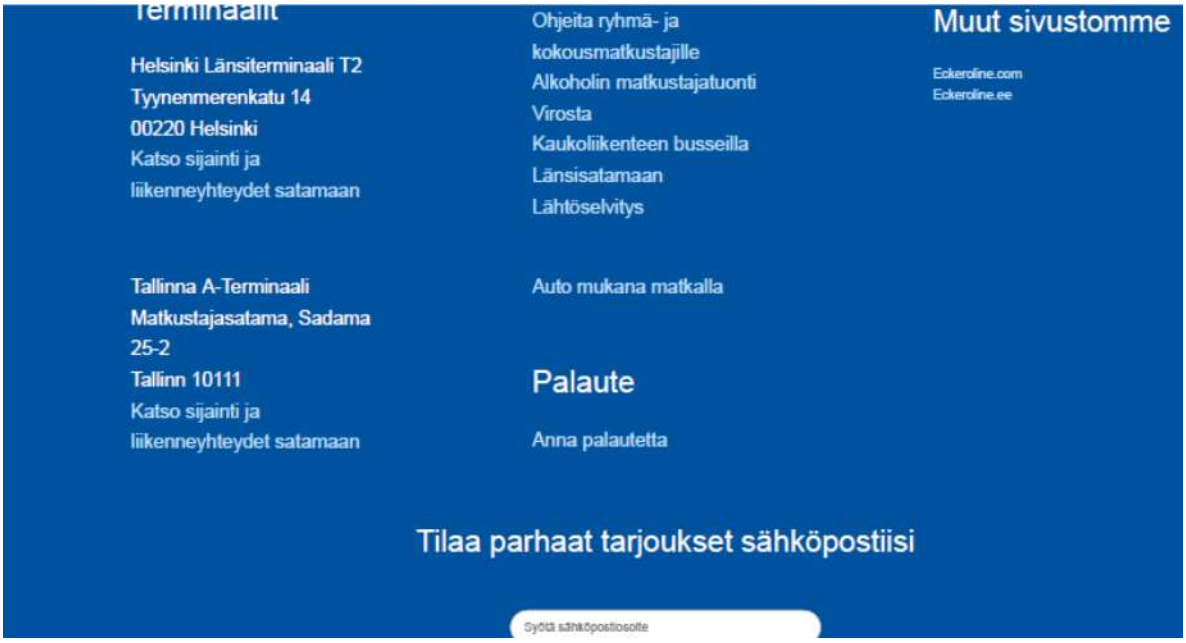
Ma-pe 8.00-19.00
La-su ja pyhäpäivät 9.00-15.30

Hyvä tietää ennen matkaa

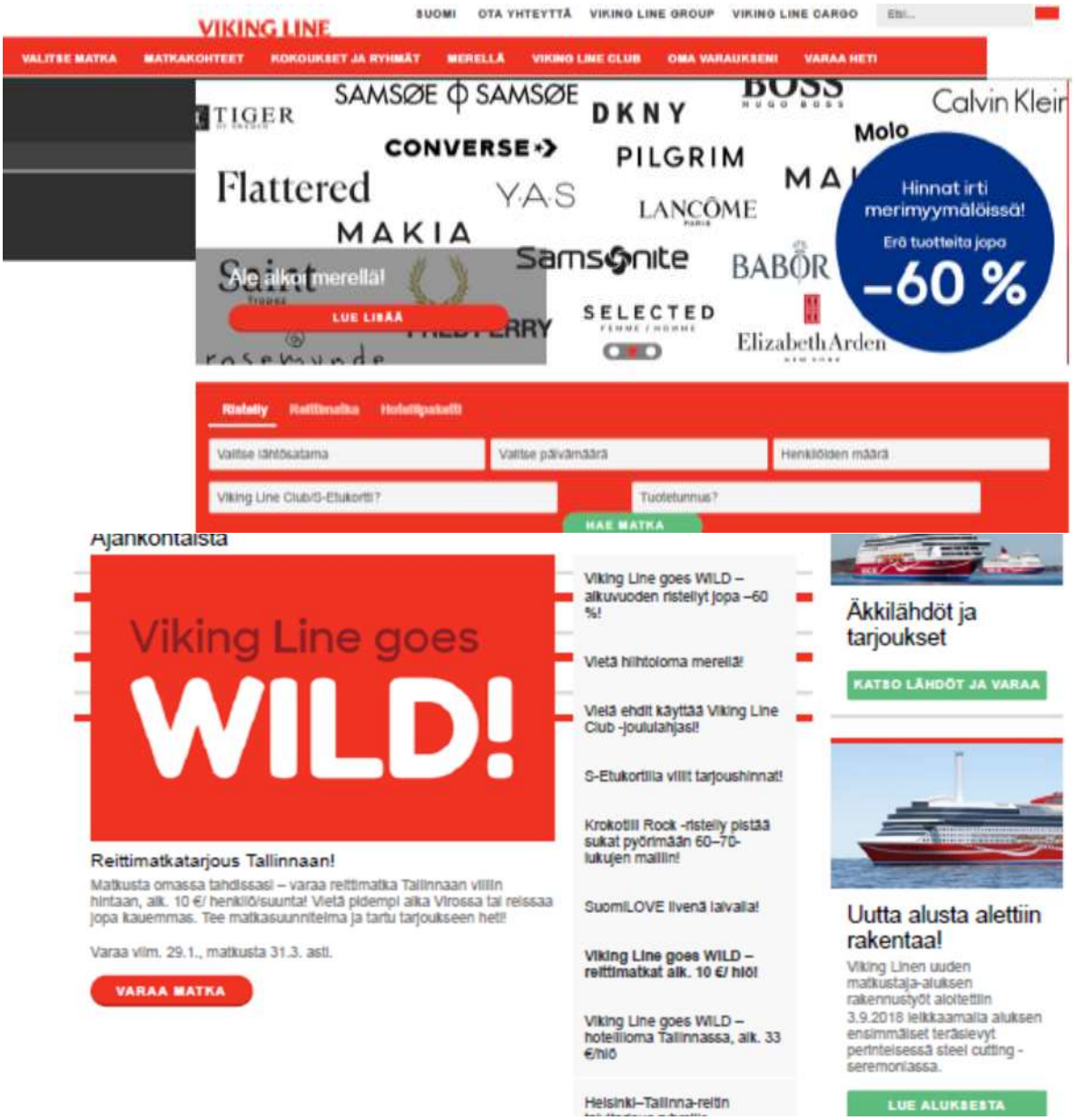
Lemmikkieläimet laivalla
Kauppiastiedot &
Verkkokaupan maksutavat
Matkaehdot

Eckerö Line

Yritysesittely
Vastuullisuus ja ympäristö
Rahti
Eckerö-konserni
Kuvapankki


Terminaalit
Helsinki Länsiterminaali T2
Tyynenmerenkatu 14
00220 Helsinki
Katso sijainti ja
liikenneyhteydet satamaan
Tallinna A-Terminaali
Matkustajasatama, Sadama
25-2
Tallinn 10111
Katso sijainti ja
liikenneyhteydet satamaan
Ohjeita ryhmä- ja
kokousmatkustajille
Alkoholin matkustajatuonti
Virosta
Kaukoliikenteen busseilla
Länsisatamaan
Lähtöselvitys
Auto mukana matkalla
Palaute
Anna palautetta
Muut sivustomme
Eckeroline.com
Eckeroline.ee
Tilaa parhaat tarjoukset sähköpostiisi
Syötä sähköpostiosoite

APPENDIX 8. Vikingline.fi main page sample (24.1.2019)



Punaisten laivojen risteilyt

Monta tapaa nauttia merielämyksestä Viking Linen laivoilla

Risteilyn hinta määräytyy varaustilanteen mukaan. Paikkoja rajoitetusti.

Viking Line goes WILD päästi hinnat irti!

Aikuvuoden risteilyt ja reittimatkat nyt viilin tarjoushintaan – alennuksesi jopa 60 %! Ja Viking Line Clubin jäsenenä saat vielä lisäalennuksen. Lue lisää »

Vuorokauden risteily Viking Gracella

VARAA

Viking Line Club alk. 37,-/l4-hytti
Norm. alk. 44,-/l4-hytti

Vuorokauden risteily Amorellalla

VARAA

Viking Line Club alk. 21,-/B4-hytti
Norm. alk. 25,-/B4-hytti

Piknik-päiväristeily Turusta

VARAA

Viking Line Club alk. 10,-/hlö
Norm. alk. 12,-/hlö

Helsinki–Tukholma-risteily

VARAA

Viking Line Club esim. 43,-/B4-hytti
Norm. esim. 55,-/B4-hytti

Päiväristeily Tallinnaan

VARAA

Viking Line Club alk. 10,-/hlö
Norm. alk. 12,-/hlö

Miniristeily Helsingistä

VARAA

Viking Line Club alk. 20,-/B2P-hytti
Norm. alk. 30,-/B2P-hytti

Merellä on edullisempaa

Makeisia, kosmetiikkaa, juomia, vaatteita, leluja ja asusteita aina edullisilla merihinnoilla. Säästösi maihin verrattuna on vähintään 25 %.

Tee tullaisjuomien tilaus ennakkoon!

Katso koko tax-free-valikoima

Matkakohteet

Ahvenanmaa

MAARIANHAMINA
AHVENANMAAN HOTELLIT
VARAA TEKEMISTÄ MAISSA
MÖKIT AHVENANMAALLA

Ruotsi

TUKHOLMA
TUKHOLMAN HOTELLIT
VARAA TEKEMISTÄ MAISSA
GOTLANTI
HOTELLIT MUUALLA RUOTSISSA
STOCKHOLM PASS

Viro

TALLINNA
TALLINNAN HOTELLIT
VARAA TEKEMISTÄ MAISSA
MUU VIRO
HOTELLIT MUUALLA VIROSSA
TALLINN CARD

LIIKENNETIEDOTE

MAKSA VARAUS

Milloin laiva lähtee ja saapuu?

KATSO KAIKKI AIKATAULUT

VIKING LINE Club

Liity Viking Line Clubiin

MEILTÄ SAAT BONUSTA
s-kanava.fi

Matkoja asiakasomistajahintaan

Hyvä tietää

- Aikataulut/Yhteydet satamiin
- Henkilötodistus/passi
- Ikärajat
- Satamat
- Läntöselvitys
- Sallitut tuomiset

Viking Line, myyntipalvelu

Puh. 0600 41577

Arkisin klo 8.00–20.00
La-su klo 9.00–18.00

2,01 €/puhelu + pvm

Evira suosittelee:

Älä tuo villisianlihaa Baltiasta.

LUE EVIRAN TIEDOTE

Ahvenanmaa
Ruotsi
Viro
Latvia
Liettua
Ninan matkassa

Kokousmatkat
Ryhmämatkat
Ruoka ja juoma
Ohjelma matkanjohtajalle
Ohjelmaa ryhmille
Tarjouspyyntö

Vihde ja artistit
Ruoka ja juoma
Ostokset
Hytit
Sauna ja Spa
Lapset ja Ville Viking
Ympäristö
Viking Line -sovellus

Liity jäseneksi
Omat sivut
Kerää ja käytä Veneitä
Jäsentasot
Jäsenedut
Jäsenehdot
Usein kysyttyä
Yhteystiedot

Maksa
Muuta/hae
Peruuta

Risteily
Reittimatka
Hotellipaketit
Mökki Ahvenanmaalla

VIKING

Ota yhteyttä Hae työtä Hyvä tietää Ympäristö Lehdistöhuone
Tietoa sivustosta Sivukartta