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THE EFFECTS OF PERCEIVED WEBSITE USABILITY ON TRUST OF ONLINE STORES



ABSTRACT

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The Effects of Perceived Website Usability on Trust of Online Stores

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Within online retail, the excellence of customer experience is not only mediated through a compelling online experience, but also other traits associated with usability and willingness to engage with the website. That is, performing online transactions also presumes that a consumer perceives a website to be both easy to use, reliable and trustworthy. This emphasizes an online store in terms of consumer's perceptions about its usability and trust. Relating to this, the current study aimed to discover the influence of perceived website usability on trust of online stores. First section of the thesis, implemented as a literature review, inspected the relationship between user experience and customer experience. Based on the literature, user experience may be considered influential to customer experience through perceived customer value. Basically, the more value-in-use experienced along with highly estimated website quality may enhance consumer's overall experience about an online store. The second section of the thesis, instead, focuses on inspecting factors related to website usability and trust via an online survey. The data (N=318) was collected in March 2018 from both students at the University of Jyväskylä and other online store users. The results gained from the survey confirmed the relationship between perceived website usability and online store trust. This relationship was especially valid in terms of aesthetic formality. The results gained may be utilized when designing customer experience in online stores. For one, the results offer insight into consumers' meaning-making of online stores' website usability. Further, they may illustrate those website attributes of usability and aesthetics which are reflected against the evaluation of an online store's trustworthiness.

Keywords: Customer Experience, User Experience, Affordances, Perceived Usability, Trust, Online Stores

TIIVISTELMÄ

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Verkkosivujen koetun käytettävyyden vaikutukset verkkokauppojen luotettavuuteen

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Verkkopainotteisessa vähittäiskaupankäynnissä erinomainen asiakaskokemus ei määrity ainoastaan kuluttajalle luodun vangitsevan ja mukaansatempaavan verkkokauppakokemuksen myötä, vaan siihen vaikuttavat myös verkkokaupan käytettävyys sekä asiakkaan halukkuus asioida verkkokauppasivustolla. Toisin sanoen, varsinaisten verkkokauppatoimintojen suorittaminen edellyttää myös verkkosivuston pitämistä helppokäyttöisenä ja luotettavana. Tämä näkökulma tekemiin havaintoihin verkkokaupan käytettävyydestä kuluttajan luotettavuudesta korostui myös tässä tutkimuksessa, joka verkkosivuston koetun käytettävyyden vaikutusta verkkokauppojen herättämään luottamukseen. Kirjallisuuskatsauksena toteutettu tutkielman ensimmäinen osa tarkasteli käyttäjäkokemuksen ja asiakaskokemuksen välistä suhdetta. Kirjallisuuden perusteella käyttäjäkokemuksen vaikutus asiakaskokemukseen voidaan nähdä kuluttajan saavuttamien arvojen kautta. Toisin sanoen, korkealle arvotetut verkkosivuston käytön hyödyt yhdessä verkkosivuston hyväksi havaitun laadun kanssa voivat myös parantaa kuluttajan yleistä kokemusta verkkokaupasta. Tutkimuksen toinen osa keskittyi puolestaan empiirisesti tarkastelemaan verkkokaupan käytettävyyteen ja luotettavuuteen liittyviä tekijöitä. Tutkimus toteutettiin verkkokyselynä maaliskuussa 2018 ja data (N=318) kerättiin sekä Jyväskylän yliopiston opiskelijoilta että muilta verkkokaupan käyttäjiltä. Kyselystä saadut tulokset vahvistavat verkkosivuston koetun käytettävyyden suhdetta verkkokaupan luotettavuuteen erityisesti esteettisen formaaliuden osalta. Tuloksia voidaan hyödyntää verkkokauppojen asiakaskokemuksen luomisessa, sillä ne tarjoavat lisätietoa liittyen kuluttajan verkkokauppasivuston käytettävyyttä koskevaan Lisäksi tulokset voivat havainnollistaa luontiin. käytettävyyteen ja estetiikkaan liitettyjä attribuutteja, joita käytetään myös verkkokaupan luotettavuuden arvioinnissa.

Asiasanat: asiakaskokemus, käyttäjäkokemus, affordanssit, koettu käytettävyys, luottamus, verkkokaupat

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1 INTRODUCTION

Online shopping has become a large part of retailing as consumers' purchasing behaviour has moved increasingly towards the Internet. As for companies, this has offered a significant way to develop customer experience by establishing their image through online presence. Namely, a company's image may influence consumers' purchase intentions through perceived values which, compared to traditional in-store shopping, makes a difference on the level of online shopping experience (Chang & Tseng, 2013). That is, the more experienced a consumer is, the more motivated s/he is towards using online stores. This means that in order for a customer to discover all of an online store's potential (Blázquez, 2014), s/he needs to be able to ascertain its positive values over the negative ones (Chang & Tseng, 2013). Hence, establishing a company's image through online presence requires the creation of a compelling online experience (Novak, Hoffman & Yung, 2000). This experience, however, also involves considering these factors behind the experience that are out of the company's control. These factors include consumers' cognitive, affective, emotional, social and physical responses to retailers (Verhoef et al., 2009).

In a way, consumers' responses to the retailers are counterparts for consumers' perceptions (e.g. Wang, Minor & Wei, 2011). These perceptions, in turn, comprise "a function of what stimuli consumers are exposed to, how often and in what manner they pay attention to those specific stimuli, and how they interpret what they see" (Kahn 2017, 40). Specifically, within online stores these perceptions are formed against the attributes offered in the website. Since these attributes reflect those properties and possible functions of the website, they can also be referred to as affordances (Norman, 2013). Affordances are stated to mediate the actions of a consumer (Kaptelinin & Nardi, 2012). Thus, to design them within the website additionally requires understanding the website user for which such affordances are designed (Pucillo & Cascini, 2014). This user's standpoint for interaction (e.g. Rousi, Saariluoma & Leikas, 2011) can be mainly approached through ascertaining the formation of user experience within online shopping environments. Precisely, the formation of user experience may

be viewed through the user's comprehension of the website's perceived usefulness and ease of use (Davis, 1989).

Both perceived usefulness and ease of use can be recognized as contributing attributes to the website quality (Hassenzahl, Diefenbach & Göritz, 2010; Rose, Clark, Samouel & Hair, 2012). Hence, they may be important to an online store's image creation as well (Chang & Tseng, 2013). Another important factor for an online store's image is trust. Trust may predict one's intention to purchase (Everard & Galletta, 2005), since online shopping transactions require consumers to disclose their personal and banking information when making purchases (Cassell & Bickmore, 2000). Moreover, since those trusting beliefs on the part of the retailer are mainly derived from the assessment of website quality (Everard & Galletta, 2005), the level of trust is also reflected through evaluations of a website's usefulness (Wu, 2013) and its perceived ease of use (Grabner-Kraeuter, 2002). Based on this, it is justified to consider the connection between these two factors and trust in the context of online customer experience creation.

Given this, the current thesis has two primary objectives. The first objective is to clarify the relationship between user experience and customer experience, and to explain how these two emerge in the framework of online stores. The second objective is to empirically study how online shopping experience affects the way a customer experiences the company as a whole – behind an online store. This objective is narrowed to the experience of trust reflected by perceived usability of a company's website. Based on these objectives, the research problem is to find out whether experiences of an online store's perceived usability influence customer experiences of company's trust, and in what ways. The research problem is approached via two research questions:

- 1. What is the relationship between user experience and customer experience?
- 2. How does a user's perceptions of an online store's usability influence the customer experience in terms of trust?

The perspective of the thesis will be restricted to the customer's, or consumers', point of view for two reasons. Firstly, considering the emotional constructs of online shopping experience, the fluid nature of emotions highlights the individual variety of experiences as well. Thus, the experience should always be viewed as a dynamic and individualistic phenomenon (Kawaf & Tagg, 2017). Secondly, the concept of trust differs between the levels of retailers and customers. That is, trustworthiness of others affects the way one acts and converses with one another. On the other hand, to establish and maintain relationships one tends to demonstrate its trustworthiness with interactional meanings (Cassell & Bickmore, 2000). Consequently, on the retailer's level it is mainly about enhancing trustworthiness through the retailer's own actions. Whereas, on the consumer's level it is about adjusting one's behavior based on trust.

The implementation of the thesis is divided into two constructs of which the first, implemented as a literature review, aims to answer the first research question set for the thesis. Accordingly, the question is approached by viewing previous academic articles and other publications related to the main fields of current study. Relating to this, literature search was implemented mainly through Google Scholar, Scopus and ACM Digital Library using the varying combinations of the following main search words: "(Online) User Experience", "(Online) Customer Experience", "Affordances", "(Perceived) Usability", "Consumer(/Purchase) Behavior", "Online/Relational Shopping Behavior", "Trust", "Online Store/E-store", "Emotions", "Website/Service Quality" and "Aesthetics". The second construct, in turn, aims to answer the second research question with the questionnaire survey implemented during March 2018. The online survey (N=318) was used to measure the key constructs of both perceived usability and trust gained by the literature review. The data was collected from both University of Jyväskylä students (and personnel) through email lists and other potential online store users through emails and social media (Facebook and Whatsapp).

The structural content of the thesis includes five content chapters of which the first three cover the theoretical basis for the study. This inspection of the theoretical part begins in chapter two which first explains the concept of online customer experience and then frames its affective and cognitive components. Then, within chapter three the concept of user experience (including the influence of affordances on it) is viewed, and its relation to customer experience is disclosed. Continuing the inspection, chapter four discusses the relativity of consumer shopping behavior and the online store attributes affecting this behavior. After this, the inspection is moved forward into the thesis' empirical part. To be precise, chapter five describes the implementation of the study, and chapter six presents the gained results. Finally, the conclusions of the study are brought together in chapter seven which also presents the limitations and advanced research topics for the study.

2 ONLINE CUSTOMER EXPERIENCE

In general, a retailer may influence consumer's choices by strategically taking several careful courses of actions related to matters, such as business location, assortment of products and terms of payment (Sheth & Parvatlyar, 1995). Further, these actions for influencing consumers' shopping behavior can be considered parallel to those ways of delivering a great customer experience (CX), which may also significantly increase the chances of consumers retransacting with the retailer (Grewal, Levy & Kumar, 2009). This may be considered more essential in online retailing, since compared to traditional instore shopping, consumers can decide whether to do business online or not.

Basically, great CX is measured as one's perceived judgement about its excellence and superiority (Lemke, Clark & Wilson, 2011). For one, this judgement can be based on levels of price, product variety and service interface, but also on experienced quality and uniqueness of service and retail atmosphere (Grewal et al., 2009; Verhoef et al., 2009). However, CX is also measured based on the evaluations of a retailer's interactivity, benevolence and integrity (e.g. Ganesh, Reynolds, Luckett & Pomirleanu, 2010; Lu, Fan & Zhou, 2016). These, however, represent only a fraction of the ways to characterize CX in the online context. Accordingly, the aim for this chapter is to capture the holistic construct of online customer experience (OCE) from the consumer's perspective.

2.1 Customer Experience

According to Verhoef et al. (2009), the concept of CX can be considered as quite holistic in nature. Firstly, it encompasses all the phases of the shopping process from search, purchase, consumption and after-sale. It may be affected by past experiences, which in turn affect the customer's subsequent expectations of future encounters and transactions. Secondly, it may involve multiple retail channels for customer interaction, including repeated experiences within a single retail channel (Verhoef et al., 2009). That is, each visit even within the same re-

tail domain, formulates its own characteristic impression on a consumer. This, in turn, emphasizes the subjectivity of consumption related experiences (e.g. Holbrook & Hirschman, 1982). Accordingly, CX can also be characterized by the consumer's subjective responses to direct or indirect encounters with the company (Lemke et al., 2011). These responses, whether they are cognitive, affective, emotional, social or physical (Verhoef et al., 2009), may emerge within situations of communication, service or consumption (Lemke et al., 2011). The level of directness or indirectness of the encounter is referred to here as the possibility of the retailer to either be (concurrently) present and in a situation or not. For example, visiting a company's website does not necessarily involve any direct encounter with the retailer, although there is often the option for chatting or sending emails.

In general, the retailer may and should control the elements related to its own actions, such as retail atmospherics, price ranges and product selection (Verhoef et al., 2009). Accordingly, these factors formulate those tangible and functional dimensions of the retailer's image (Verhagen & Van Dolen, 2009). On the other hand, relating to the subjectivity of consumer's responses (Lemke et al., 2011), CX also considers those person-specific features of consumption, such as the individual's personality, attitudes, memories and emotions, that are often out of the retailer's control (Verhoef et al., 2009). Yet, these person-specific features are equally important when establishing a company's image, since they are related to those impressions of the retailer's intangible and psychological factors, such as perceived quality of service and brand reputation (Verhagen & Van Dolen, 2009). Consequently, these factors will be viewed next in terms of perceived social presence of e-commerce, satisfaction through perceived values and trust in online retailers.

Perceived social presence of e-commerce

Gaining a consumer's attention among various online environments is often achieved through branding. That is, creating a successful online brand indicates consumer experiences as valuable and different from competitive products (Morgan-Thomas & Veloutsou, 2013). Additionally, the ways to build the brand may vary in terms of whether the retailer does business both online and offline. Thus, in multi-channel retailing, where consumers expect an integrated experience within both channels (Blázquez, 2014), impressions of a retailer's offline store are used as references for its online counterpart (Verhagen & Van Dolen, 2009). All in all, positive brand experience may lead to satisfaction, behavioral intentions and emotional ties with the brand (Morgan-Thomas & Veloutsou, 2013). However, since consumers may feel uncertain towards online transactions (e.g. Grabner-Kraeuter, 2002; McKnight, Choudhury & Kacmar, 2002), it is essential for a retailer to consider initiatives that prioritise the establishment of a sense of reliability. For instance, this can be approached by increasing clues that support the illusion of a retailer's social presence (Lu et al., 2016).

Social presence is referred to here as the website's ability to build a sense of personal, sociable and sensitive contact with consumers (Lu et al., 2016). Further, this sense may be strengthened through website content (Lu et al., 2016) by offering social touches to interaction, such as welcoming the consumer to the website, or personalizing subsequent visits and e-mail communications (Gefen & Straub, 2004). Considering that the website functions as the medium through which consumers gather information and develop (both positive and negative) impressions about the online store and company (Everard & Galletta, 2005), these perceptions of social presence may affect the consumer's attributional thinking as well. This attributional thinking is mainly about explaining to oneself why a certain event or outcome has taken place. Thus, for example, purchasing a product can be seen to involve either positive or negative outcomes, which further results in an attributional conclusion or explanation of why the exact outcome appeared (Weiner, 2000). Basically, those attributions (i.e. perceptions of causality) related to the retailer and its products may affect the consumer's decision-making at every stage of consumption from need identification to post-purchase impressions and decisions (Puccinelli et al., 2009). Hence, confronting the website with low social presence may reduce their beliefs of both a retailer's trustworthiness and its ability to fulfil consumers' expectations for the service (Gefen & Straub, 2004).

Basically, the more information and social cues the website conveys, the more transparent an online store appears to be. Hence, perceiving enough social cues of an online retailer's presence may both reduce a consumer's uncertainty and enhance their trust-based beliefs. (Lu et al., 2016.) Moreover, the number of social cues perceived also enhances the feelings of comfort and emotional satisfaction (Zhang, Lu, Gupta & Zhao, 2014) which may, in turn, increase the level of enjoyment experienced with the website use (Koufaris, 2002). This highlights the importance of a retailer in using its authority to alter consumer attributions (Puccinelli et al., 2009) related to feelings of trust and experienced comfort in online stores.

Satisfaction through perceived values

Customer satisfaction is stated to indicate the favorable attitude of a customer (Flavián, Guinalíu & Gurrea, 2006). Basically, it can be expressed towards matters such as the service provided, product performance or the retailer's appearance. Accordingly, this attitude involves an internal reference point of comparison between the expected performance and the actual performance of a product/service (Liao, Lin, Luo & Chea, 2017). Thus, the level of satisfaction mainly reflects the extent to which a product/service has managed to meet a consumer's expectations. It is about the difference between what a consumer wants and what s/he obtains (Flavián et al., 2006). Therefore, satisfaction also considers the counterpart of regret, which is an external reference point of comparison for post-purchase decisions (Liao et al., 2017). Moreover, it usually results due to dissonance between the user's pre-usage belief and first-hand experience with the product or service (see e.g. Hsu, Yen, Chiu & Chang, 2006). Furthermore,

experiencing either satisfaction or regret can be seen to result from perceptions of customer value, which is defined as the following:

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

Based on the above, customer value seems to arise from both observations made before and after product use. Thus, it can be considered to involve both the perceived value of the product and the experienced value of the use, i.e. value-in-use (Heinonen & Strandvik, 2009). Of these, especially the latter seems to predict customer satisfaction. That is, the more positively a consumer values the experience, the higher the intensity of positive emotions (Éthier, Hadaya, Talbot & Cadieux, 2006) that lead to satisfaction (Morgan-Thomas & Veloutsou, 2013). In terms of the values behind satisfaction, a relationship can be drawn between both self-oriented and goal-oriented factors depending on a single consumer (Hassenzahl, 2004).

In general, experiencing the feelings of satisfaction or regret in technology use is usually seen to be lowered by two major concerns: security and ease of use (Elliot & Fowell, 2000). Of these, security implies both concerns of a consumer related to the reliability of a retailer (Grabner-Kraeuter, 2002) and the feelings of vulnerability in online transactions (Hoffman, Novak & Peralta, 1999). These aspects of security will be viewed more closely within the upcoming overview of trust. Ease of use, instead, refers to the ease in which users can locate the relevant information from the website (Skadberg & Kimmel, 2004) and it can be related to the broader view of the website's usability. Specifically, usability of the website seems to determine the consumer's satisfaction in terms of the experiences related to usage of a product or service (Hassenzahl, 2004). This means that problems faced within the usage, such as the difficulty of website navigation, also affects the assessments of usability resulting as unsatisfactory or negative experiences (Elliot & Fowell, 2000). Hence, the greater usability (with the absence of website difficulties) leads to greater customer satisfaction as well (Flavián et al., 2006).

Trust in online retailers

The essence of trust can be seen to rely on credibility and belief in another entity (Cassell & Bickmore, 2000), which is why it is regarded as one of the most important antecedents of online brand experiences (Morgan-Thomas & Veloutsou, 2013). Accordingly, trust determines one's engagement in financial and emotional transactions, and readiness to disclose personal information and become more intimate (Cassell & Bickmore, 2000). Within online transactions trust can also be related to feelings of vulnerability, since consumers may feel concerned about the lack of control they have on that personal information handed over to an online retailer (Hoffman et al., 1999). Consequently, a consumer's willingness to provide sensitive information may depend on the assessment of a retail-

er's trustworthiness (Grabner-Kraeuter, 2002). This assessment, in turn, is easily influenced by the retailer in terms of its online actions (Wu, 2013). Precisely, the retailer may contribute to its own image creation in regard to competence, benevolence and integrity. That is, to what extent a retailer is perceived to be able to perform its online actions by following the acceptable set of principles and fulfilling the agreements promised (Kuan & Bock, 2007; Lee & Turban, 2001; Mayer, Davis & Schoorman, 1995.) Yet, these retailers' activities only matter to some extent, since a consumer's trust is influenced by other trust-related factors as well. For instance, a consumer's disposition to trust, which is related to one's personality traits and behavioral patterns (Grabner-Kraeuter, 2002), may also moderate the effect of an online retailer's actions to build its trustworthiness (Lee & Turban, 2001). This effect may be especially relevant in terms of a retailer's integrity and predictability (Gefen & Straub, 2004).

Along with the aforementioned individual characteristics, a consumer's trust may also be influenced by other contextual and social factors, such as the appearance of family, friends and fellow consumers (Verhoef et al., 2009). For one, this refers to the information obtained through interpersonal communication, i.e. word-of-mouth (WOM), which in online shopping environments involves store ratings and shared reviews with other consumers as well (Gauri, Bhatnagar & Rao, 2008). The role of WOM may be considered highly influential to trust, since consumers tend to seek information and experiences from others to reduce their own risk and uncertainty in consumption situations. Moreover, they may even rely more on this informal and personal communication with other consumers than actual organizational resources (Hsu & Tsou, 2011.) In the case of multi-channel retailing, the influence of WOM may even overcome a consumer's own perceptions of offline trust (Kuan & Bock, 2007). Accordingly, WOM may have an impact on consumer's acceptance or prevention towards the retailer and its products (Sheth & Parvatlyar, 1995).

The relationship between website usability and consumer trust

Based on the above, trust can be considered to form an underlying platform for consumer beliefs in online purchases. Moreover, these trusting beliefs are considered to mediate the relationship between website appeal and intentions to use (Hampton-Sosa & Koufaris, 2005). Basically, similarly to the relationship between website usability problems and satisfaction (Elliot & Fowell, 2000; Hassenzahl, 2004) the difficulties of website use may also affect one's trust in an online store. This is due to the notation that through the website, consumers additionally assess the reliability of the retailer (Grabner-Kraeuter, 2002). Hence, perceived website quality may also influence a customer's intentions to trust (McKnight et al., 2002).

Usually those usability concerns that reflect on the assessment of website quality, involve functional and navigational issues, such as the currency of presented content or the ease of navigation (Éthier et al., 2006). Accordingly, any flaw from typological error and unfamiliar notation to inconsistent and faulty formatting issues may interfere with reading and understanding website con-

tent and lead to decreasing levels of trust. Eventually, without trust consumers may even end up avoiding the website (Everard & Galletta, 2005). Yet, the influence of the website flaws on consumer's trusting intentions is mostly determined by one's formulated perceptions towards them. That is, in what manner a consumer pays attention to existing flaws (stimuli) and how s/he perceives (interprets) them (Kahn, 2017). Hence, it is about the perception of flaws from the website rather than the actual existence of them (Everard & Galletta, 2005).

2.2 Affective and Cognitive Components of OCE

This thesis applies the conceptual model of OCE by Rose, Clark, Samouel and Hair (2012) as the background framework for the study (Figure 1). The aim for Rose et al.'s (2012) study was to develop and test a comprehensive model of OCE based on literature and data found from online shopping experiences. The main idea of the model is to describe consumer's cognitive and affective processing of sensory information gained from a website. Further, the processing results in the formation of a consumer's impressions about the website in memory. Hence, the formation of OCE is seen as cumulative over time (Rose et al., 2012). The basis of the model is composed of two component variables of OCE representing the two-sided human processing of the experience: Affective Experiential State (AES) and Cognitive Experiential State (CES). Considering the first state of the model, AES refers to the processing of emotions, moods and feelings. This is in consequence of the concept of affect comprising the collection of one's moods and emotions (Puccinelli et al., 2009). As for considering the experience of affect, it is stated to be related to product perceptions, evaluation and subsequently need fulfilment (Hassenzahl et al., 2010). Also, the stimulation of feelings through technology has stated to especially influence feelings of capability, effectiveness as well as closeness and communication with others (Hassenzahl et al., 2010; Sheldon, Elliot, Kim & Kasser, 2001). Rose et al. (2012) present consumer affective processing as being influenced by six antecedents, these include: Perceived control, Ease of use, Customization, Connectedness, Aesthetics, and Perceived benefits of the technology use.

Considering the other state of the model, CES includes the individual's conscious mental processes. Further, the basis of CES is stated to be the experience of flow (Rose et al., 2012), which within online stores is mainly associated with feelings of enjoyment, time distortion and telepresence as well as increased learning from the website content (Skadberg & Kimmel, 2004). Considering this, the experience of flow is stated to result in the increased ability to examine product information and learn from it (Jiang & Benbasat, 2004). Therefore, flow is defined here as the subjective state of intrinsic enjoyment with the sense of control without reflective self-consciousness or awareness considering the passage of time (Nakamura & Csikszentmihalyi, 2009, 195–197). According to Rose et al. (2012), CES is influenced by four antecedents of interactive speed, telepresence, challenge and skill.

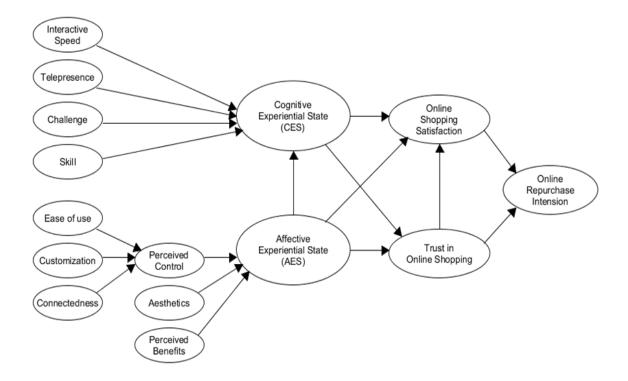


FIGURE 1 Conceptual model of OCE (Rose et al. 2012, 310)

Eventually, these antecedents of both AES and CES are considered influential to consumer's perceived level of trust and satisfaction towards the website, and subsequently predicting one's intentions to repurchase from the online store (Rose et al., 2012). Next, the standpoint of each variable represented in the model will be viewed by reflecting the results of Rose et al.'s (2012) study against other literature found.

Perceived control: ease of use, customization and connectedness

Perceived control can be characterized as the perceived level of control over the environment and one's actions (Koufaris, 2002). Accordingly, it refers to the extent to which one's online transactions are in the individual's own control. Within an online environment, this control may also be referred to as virtual control which consists of both functional and visual control. Of these, functional control enables exploring the product in terms of its features and functions, whereas, visual control enables the inspection from different angles (Jiang & Benbasat, 2004). In general, the sense of being control may be considered to have an influence on one's emotional responses generated in varying situations. That is, when an individual is being able to control the situation, s/he may experience to be dominant (Koo & Lee, 2011). And as emotions can be regarded to lead either positive or negative outcomes, the influence of perceived control within online transactions may also be considered as either-or. To illustrate the first of these two scenarios (i.e. the positive outcome) within online transactions, enhancing one's perceived control may reduce both a consumer's state of uncertainty and risk involved in a situation (Hampton-Sosa & Koufaris, 2005). Considering the other scenario (i.e. the negative outcome), instead, with uncontrollable shopping environment a consumer may feel her-/himself as irritated and tensely aroused rather than energetically aroused (Koo & Lee, 2011).

According to Rose et al. (2012), perceived control is mediated through three other variables of ease of use, customization and connectedness. Of these, especially ease of use is stated to have a significant influence on AES (Rose et al., 2012). That is, an easy to use website in terms of locating relevant information from it (Skadberg & Kimmel, 2004) seems to enhance one's feelings of being in control (Rose et al., 2012). This also establishes the connection between ease of use and trust, since those perceptions of website navigation, response time and quality of information may affect the assessment of its reliability and subsequently one's feelings towards the retailer (Grabner-Kraeuter, 2002; Wu, 2013). In considering the other two mediators of perceived control, customization refers to the personal tailoring of products and services. Thus, compared to personalization, customization does not only offer preferences, but also allows a consumer to specify these preferences (Sundar & Sampada, 2010). Connectedness, in turn, reflects the ability to connect and share knowledge with other consumers (Rose et al., 2012). The latter also relates to the presence of WOM in terms of receiving and sharing peer ratings (Gauri et al., 2008). Both connectedness and customization can be seen to influence one's feelings of control by empowering consumers and giving them confidence with their decisions. Especially customization is seen to build the sense of personal control by emphasizing a consumer's role in specifying content (Sundar & Sampada, 2010) and thus enabling consumers to form their own shopping rituals and routines (Rose et al., 2012). Conversely, the presence of connectedness can be regarded as an important variable for one's trusting intentions. That is, the perceptions of other consumers relating to especially positive buying situations with the online store may contribute to one's trusting intentions with the online retailer (Lu et al., 2016).

Website aesthetics

Within the field of design, the definition for aesthetics have not been considered as entirely unanimous due to varied existing approaches. For one, philosophyrelated aesthetic theories have considered aesthetics in terms of how things are evaluated to be beautiful and where beauty is located, whereas psychologyrelated theories have been more interested in the nature of aesthetic experience (e.g. Folkmann, 2018; Forsey, 2013). Additionally, the reflection of aesthetic experience has also been approached in the field of art (see e.g. Iseminger, 2004). As for this particular context, the concept of aesthetics is used to describe those objective features related to an online store's layout, such as website design elements and attributes. But then, the concept is also seen to describe those subjective reactions that a consumer forms against some specific website design features (Sonderegger & Sauer, 2010). Hence, aesthetics is about promoting those perceptions of website quality (Rose et al., 2012) with diverse design elements and attributes (Wang et al., 2011). In considering the overall aesthetic

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appearance of the website, one possible way is to characterize it as either classical or expressive. Of these, classical aesthetics is usually used to describe a website of which the layout is seen as well-organized, clear and symmetrical. In the case of expressive aesthetics, instead, the website layout is considered to go beyond classical aesthetic principles by stressing the website's creativity and originality (Lavie & Tractinsky, 2004). Alternatively, the inspection of website aesthetics can also be divided into two dimensions of aesthetic formality and aesthetic appeal of which the first one demonstrates the effectiveness and efficiency of product/service information in terms of facilitating purchase tasks (Wang et al., 2011). Basically, it assigns values to those conditions that indicate the appropriateness of interaction, and thus supports the process of selecting the best action (Xenakis & Arnellos, 2013). The latter one, in turn, establishes the hedonic quality of the website through design features, such as colors, graphics and images (Wang et al., 2011).

Continuing the inspection of website aesthetics to discuss its importance, it is stated that due to the increasing use of the web for recreational and entertaining experiences, an appealing website may be more superior to other lessappealing ones (Childers, Carr, Peck & Carson, 2001; Wang et al., 2011). Moreover, one may consider a website's attractiveness to be the most important factor for online experience quality, since it promotes the interpretation of the website (Skadberg & Kimmel, 2004). That is, aesthetic stimuli are considered to influence both consumers' affective and cognitive states in relation to satisfaction, arousal and perceived quality which, in turn, lead to those conative inclinations of a consumer (Wang et al., 2011). With these conative inclinations are referred to the extent of one's desire to associate with the online store in terms of acquiring information and purchasing from the website. Moreover, since aesthetic appearance is expected to meet those intended tasks of a consumer (Wang et al., 2011), website aesthetics can also be related to website usability. This relation will be discussed further within the next chapter of the thesis.

Perceived benefits of e-store use

Perceived benefits refer to those values that a consumer attains by using the online store (Rose et al., 2012). For example, a consumer's perceived benefits may include matters, such as convenience of purchasing anywhere and anytime, possibilities for customization, and cost savings related to time, money and effort (Elliot & Fowell, 2000). Basically, it is about a customer perceiving a causal link between those concrete goals relating to product or service quality and the actual outcomes of usage. Accordingly, perceived benefits are measured in terms of value-in-use which reflects the perceived judgement of customer experience quality (Lemke et al., 2011). Basically, any service characteristic of online store can be considered either as a benefit or sacrifice in relation to other comparable service or individual's subjective reference point (Heinonen & Strandvik, 2009). This is based on the notation that one's perception of values considers the trade-off between what is received and what is given up for acquiring and using a product (Woodruff, 1997). For example, a

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paid price, which can otherwise be considered as a sacrifice, may turn out to be a benefit if it is perceived as better than an alternative price of a competing product/service (Heinonen & Strandvik, 2009).

The role of value-in-use within online shopping experience can be validated based on two reasons. First, it can be considered important to meet consumer's values to promote the image of an online store, since it may enhance one's overall shopping value (Chang & Tseng, 2013). Second, since perceptions of consumer valued features are partly derived from service quality (Cronin, Brady & Hult, 2000), it indicates that value-in-use may mediate the connection between experience quality and relationship outcomes (Lemke et al., 2011). That is, fulfilling one's values may affect the willingness to re-associate with the retailer as well (Chang & Tseng, 2013).

Experiencing flow through telepresence

As mentioned earlier, telepresence may be regarded as one important structure of flow within online stores. In a way, it is also considered as somewhat similar in structure, since it also includes one's complete involvement, focused attention and loss of awareness (Skadberg & Kimmel, 2004). Accordingly, it refers to one's cognitive immersion with technology (Rose et al., 2012) that is perceived to be more real or dominant than an individual's physical environment (Novak et al., 2000).¹ Basically, it allows an individual to feel as s/he would be present within the virtual environment. In the case of online environments, the richness of presented media is considered to result in a heightened sense of telepresence. That is, the more vivid and interactive the website is with similar product presentations, the more it allows consumers to imagine what the presented product would be like in actual use (Hopkins, Raymond & Mitra, 2004; Verhagen, Vonkeman, Feldberg & Verhagen, 2014; Vonkeman, Verhagen & van Dolen, 2017).

In relation to one's perceptions as the basis for consumer responses (Kahn, 2017), perceived telepresence may also have its influential effects for one's attitude and behavior. Moreover, studies mainly within online advertising environments have indicated the relations between perceived telepresence and consumer's involvement. That is, the level of involvement reflecting personal relevance or meaning to an individual (Novak et al., 2000), may moderate those consumer responses affected by perceived telepresence (Hopkins et al., 2004). Especially, within the cases of low involvement, the role of perceived telepresence may be more significant (Hopkins et al., 2004). This may also be the case with online stores in which the degree to which a consumer is engaged with the retailer's communications also drives one's inherent motivation towards the interaction (Puccinelli et al., 2009). Similarly, it can be considered as

¹ Some researchers suggest that the concept of telepresence captures mainly the mediated perception of technology rather than unmediated one. Therefore, they have opposed to adopt more widely used concept called local presence. This refers to perceiving presented online product as if it was there in a consumer's nonvirtual world. (Verhagen et al., 2014; Vonkeman et al., 2017.)

the ultimate role for an online shopping environment to bring those online shopping experiences of a consumer closer to what s/he also experiences in real-life (Kawaf & Tagg, 2017).

Expectations for challenge and interactive speed

According to the initially proposed model by Rose et al. (2012), both challenge and interactive speed was presented as antecedents of CES. Of these, challenge of the website is mainly viewed through the evaluation of website content (Skadberg & Kimmel, 2004) in relation to the amount and variety of information in it (Palmer, 2002). In turn, interactive speed relates to the efficiency of interaction. This is in terms of a website's responsiveness and download delay, whereby the first is used to measure the options and speed with which a website provides responses to consumer's activity. The latter, instead, measures the speed of access and the display rate within the website. (Novak et al., 2000; Palmer, 2002.)

Starting with the results gained from perceived challenges in technology use, Rose et al.'s (2012) study indicated its positive influence on OCE formation. This founding is similar with the previous study implemented by Novak et al. (2000). Yet considering their results further, Novak et al. (2000) suggest that although challenging consumers with the website design may arouse one's feelings of excitement, an overly challenged website may as well evoke feelings of frustration. Thus, it is rather essential to reflect the amount of challenge in the website to those consumer expectations for the website appearance. For example, in online shopping environments consumers may not expect negative challenges, such as the difficulty of navigation, slow download time for the web pages or the lack of product availability (Koufaris, 2002). Conversely, reflecting the role of interactive speed within OCE creation, the results gained by Rose et al. (2012) did not support it as being a part of the overall judgement of OCE, although some previous studies have implicated its indirect effect on the experience of flow through the evaluation of website attractiveness (e.g. Skadberg & Kimmel, 2004). Hence, within the frames of this thesis the role of interactive speed is considered as the possible background factor for OCE, yet it is not included in the actual research model.

Skills for using online store

The term 'skills' can be defined as one's level of knowledge within a presented domain (Skadberg & Kimmel, 2004). In the online context, this knowledge mainly involves the understanding of how to access the website or interpret and use its functions. Accordingly, skills can be related to those perceptions of website usability, since understanding the properties and intended use of a product or service also supports the right kind of use (Norman, 2013). Accordingly, a consumer with higher lack of skills may find the experience with the website less usable (Hampton-Sosa & Koufaris, 2005). Contrary to their initially proposed model, Rose et al. (2012) did not find one's skills as a significant ante-

cedent of CES, which according to them indicates that consumer's technical capability may not necessarily determine the experience of the website. Instead, as some previous studies have indicated, the level of one's skills may have an influence on one's attitudes and behavioral intentions towards online store use (Hampton-Sosa & Koufaris, 2005; Koufaris, 2002; Novak et al., 2000; Mahmood, Bagchi & Ford, 2004; Skadberg & Kimmel, 2004).

To begin with, the level of perceived importance of the product or service is seen to correlate with one's skills of using it as well. Basically, the more important a consumer considers the website - or online environments in general to be, the more skilled and focused s/he is on using it. (Novak et al., 2000.) Further, the more knowledge one holds about the usage of online environments, the more likely s/he will seek information through the website as well (Skadberg & Kimmel, 2004). On the other hand, the level of skills may also reflect to one's behavioral intentions to use the website through trust. That is, considering how enjoyable the website is experienced, it is related to one's confidence and comfort with using it (Koufaris, 2002). Now, considering the lack of knowledge in the website use, instead, it may influence on experienced trust in online retailer. Therefore, considering the lack of skills combined with uncertainty, these two together may lower one's behavioral intentions towards the website. (Mahmood et al., 2004.) Accordingly, the level of consumer's skills cannot be stated to be completely separate from the formation of online shopping experience. However, due to the aims for the present study, the variable of consumer's skills will not be included in the actual research model.

Intentions to repurchase based on satisfaction and trust

According to Rose et al. (2012), consumer's repurchase intentions, i.e. the continuance shopping behaviour towards the same retailer (Khalifa & Liu, 2007), is mediated mainly through satisfaction and trust experienced within other antecedents of CES and AES. Precisely, consumer's level of satisfaction is generally reflected to one's engagement in shopping (Wu, 2013) through loyalty (Shankar, Smith & Rangaswamy, 2003). That is, the depth of information at a website and the ease of obtaining it increases consumers' overall satisfaction and in turn, reinforces their loyalty to an online store (Shankar et al., 2003). Hence, the failure to meet customer's expectations and search effort decreases the level of satisfaction and further increases the feelings of regret. This, in turn, may influence on consumer's overall satisfaction and determine those intentions to repurchase (Liao et al., 2017.)

Relating to one's satisfaction with the same retailer, it may be influenced by other factors as well. For one, repurchase intention may be related to one's threshold to purchase. That is, given the same level of satisfaction, a consumer with lower threshold may be more likely to repurchase the same brand (Mittal & Kamakura, 2001). On the other hand, online shopping behavior may be determined by the habit of using online channels in general. Hence, the satisfaction experienced with previous transactions may not necessarily lead to repurchase intention if a consumer has not formed an online shopping habit. (Khalifa

& Liu, 2007.) Instead, considering the consumer with online shopping habits, the satisfaction experienced with the same retailer (resulting to continuance usage of the retailer's store) may also be related to perceived conditions of switching barriers. For example, these barriers may include interpersonal relationship with the service provider, perceptions of switching costs (i.e. time, money and effort used), or the attractiveness of competing alternatives available (Jones, Mothersbaugh & Beatty, 2000).

On the other hand, satisfaction is also stated to mediate consumers repurchase intentions through trust (Rose et al., 2012). Accordingly, trust can be related to satisfaction through the fulfilment of consumer's expectations (Liao et al., 2017; Wu, 2013), since along with positive experiences consumers expect the credibility of both products and services (Grabner-Kraeuter, 2002), and information provided in the website (Hsu & Tsou, 2011). Yet, trust do not only predict customer satisfaction, but it also may determine one's online purchase decisions (Wu, 2013) based on perceptions of online retailer's competence, benevolence and integrity (Kuan & Bock, 2007). Especially those beliefs related to online retailer's integrity are stated to predict one's online purchase intentions (Gefen & Straub, 2004). Moreover, within the case of familiar e-vendor consumers repurchase intention is seen to depend equally on trust than those perceptions related to usability (Gefen, Karahanna & Straub, 2003).

3 ONLINE USER EXPERIENCE

All consumers' actions from searching, comparing, selecting and evaluating information to interacting with a retailer can be considered as constructs of online experience (Constantinides, 2004). This indicates the fact that consumers cannot be considered as purely buyers of products and services, but also users of web-based systems (Wu, 2013). Hence, it is also adequate to consider that if a consumer does not value the use of a website, neither will s/he use it. This means that if certain service elements do not increase a consumer's desire to use the actual service, no value-in-use occurs (Heinonen & Strandvik, 2009). This value-in-use can be considered both in terms of utilitarian and hedonic values, since along with website's usefulness a consumer may also value its use as intrinsically enjoyable (Childers et al., 2001). Further, this emphasizes the role of pleasure as the mediator of those attitudes that consumer forms against an online store (Porat & Tractinsky, 2012).

In general, the more experienced a consumer is, the more enjoyed and motivated s/he tends to be with using an online store (Blázquez, 2014). This draws the attention to the actual constructs of a consumer's online shopping experience. Further, as these online experiences are acknowledged to vary even within a single consumer (Verhoef et al., 2009), the nature of these experiences are needed to engage appropriately. This is done by approaching the subjective state of the experience rather than concentrating a consumer as an organism responding to external stimuli (Kawaf & Tagg, 2017). This subjectivity of online experience is discussed within this chapter by defining the frames of user experience (UX) within OCE.

3.1 User Experience

Generally, UX is stated to be something dynamic, context-dependent and subjective which results from a broad range of potential benefits derived from a product or service (Law, Roto, Hassenzahl, Vermeeren, & Kort, 2009). With

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dynamism is here referred to those interactive conditions that may alter both internally (i.e. in a bodily and behavioral manner) and externally (i.e. environmentally) with respect to the user (Xenakis & Arnellos, 2013). Further, since UX can be considered to emerge within the interaction between the user and the product, it also involves both of their characteristics. In the case of a user, these characteristics usually include the individual's prior experiences, attitudes, skills, habits and personality. The characteristics of the product, in turn, include its presentation, functionality, performance and interactive behavior (Pucillo & Cascini, 2014). Accordingly, these characteristic features can also be utilized as the basis for framing the appearance of UX. This specific method is approached in an article by Rousi, Saariluoma and Leikas (2011) in which the user psychology model for UX is presented (Figure 2).

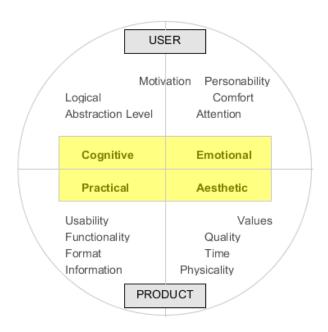


FIGURE 2 Categorical dimensions of UX (Rousi et al. 2011, 31)

According to their model, Rousi et al. (2011) view UX through four categorical dimensions of cognitive, emotional, practical and aesthetic. Of these dimensions, the first two represent the user's position by including individual's mental processing (logical and abstraction level), motivation towards the interaction as well as personability, comfort and attention. Accordingly, these dimensions seem to be somewhat equivalent to those cognitive and affective states of a consumer which are presented in the OCE model by Rose et al. (2012). Instead, the latter two dimensions represent the product's qualifications: practical dimension considers product's usability, functionality, format and information, whereas aesthetic dimension considers values, quality, time and physicality related to product use (Rousi et al., 2011). Next, by utilizing these four dimensions the concept of UX is viewed more closely in relation to user's cognitive and emotional appraisals for a product/service.

Perceived usability: perceived usefulness and perceived ease of use

Since UX is often related to usage (Law et al., 2009), it is mainly viewed through the concept of perceived usability. This concept refers to the pragmatic quality of a product (or service), which in turn reflects the user's assessment of the product's potential to support certain do-goals (Hassenzahl et al., 2010). These do-goals represent those user-specific goals of an action which, in turn, can be facilitated with the relevance of some object, such as a certain product. For example, technology can be considered as one such meditational means (e.g. Kaptelinin & Nardi, 2012) for achieving consumer's goals. The inspection of perceived usability can be further divided into concepts of perceived usefulness and perceived ease of use. Of these, perceived usefulness refers to "the degree to which a person believes that using a particular system would enhance his or her job performance", whereas perceived ease of use considers "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989). In other words, perceived usefulness mediates the appropriateness of the product use, and perceived ease of use, in turn, the effort for deployment and usage of the product. This effort for using the product can be for example measured as individual's mental, monetary or timely capacity available for learning and continuing the use the product.

Of these two concepts, especially perceived usefulness is seen to correlate with user's acceptance. That is, the primary reason to adopt the technology is its appropriateness for use, since no amount of ease of use can compensate for a system that does not perform useful functions to a user (Davis, 1989). On the other hand, perceived ease of use can be considered to have an influence on one's behavioral intentions partly through perceived usefulness (Agarwal & Karahanna, 2000). This means that the website perceived as easy to use may subsequently enhance the feelings of its usefulness as well. Accordingly, perceived usefulness seems to be the main determinant for the intention to revisiting the website as well. That is, the higher the experience of the website, the greater the influence of perceived usefulness on consumer's attitude towards the website. Instead, in the case of low experience the attitude is more conditioned by ease of use (Castañeda, Muñoz-Leila & Luque, 2007). Yet, within technology use both perceptions are as strongly determined by cognitive absorption, i.e. the state of deep involvement with the software (Agarwal & Karahanna, 2000). Moreover, this absorption is exhibited through five dimensional characteristics of a user during the interaction (Malone 1981, according to Agarwal & Karahanna 2000, 673):

- The inability to register the passage of time (i.e. temporal dissociation)
- The total engagement of one's attention (i.e. focused immersion)
- The arousement of sensory and cognitive curiosity
- Heightened enjoyment (as a result of pleasure)
- The perception of being in control (i.e. perceived control)

Based on the dimensions above, cognitive absorption seems to reflect the state of flow discussed within the model of Rose et al. (2012). Additionally, since cognitive absorption is more likely to be experienced with visually appealing technologies (Agarwal & Karahanna, 2000), perceptions of both usefulness and ease of use can be related with the aesthetic appearance of a product or service.

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Pragmatic vs. hedonic quality

Apart from viewing only pragmatic features of a product, such as its usability, format and functionality, there is also the aesthetic dimension related to product use (Rousi et al., 2011). This aesthetic dimension, or the aesthetic appearance (Wang et al., 2011), of a product is often embodied in its hedonic quality. Moreover, this hedonic quality represents one's estimation of a product's potential to support pleasure in use and ownership. Accordingly, those hedonic features valued in the product use are also known as so-called be-goals, such as to be excited or amused (Hassenzahl et al., 2010).

Within those situations of consumption, a consumer's decisions are often considered to be more influenced by utilitarian than hedonic values (Chang & Tseng, 2013). This means that although a consumer would end up exploring some new product or service due to its hedonic values it may not necessarily increase the functional use of such product/service (Beaudry & Pinsonneault, 2010). In other words, the continuance of product (service) use requires that the product (service) always meets those pragmatic features valued by the user. Yet, this does not directly lead to the mitigating role of hedonic values, since they are often considered as an equally constitutive part of the consumption. That is, from the consumer's standpoint consumption (characterized also as a subjective state of consciousness) always involves those symbolic meanings, hedonic responses and aesthetic criteria set for it (Holbrook & Hirschman, 1982).

Relating to the concept of consumption, the hedonic quality is, in fact, stated to be the main contributing factor of a positive product experience (Hassenzahl et al., 2010). Furthermore, it is possible that the aesthetic appearance of a product may have its effects on the estimation of a product's pragmatic quality as well (Sonderegger & Sauer, 2010). This indicates that a product with positive aesthetic appearance would also be experienced as more positive in terms of its pragmatic features. Although, this effect may also appear to be the opposite to that of the user's affective experience with the product usability that may mediate the aesthetic experience. For example, in the case of estimating the quality of a website, poor usability may lead to lower ratings of website aesthetics (Tuch, Roth, Hornbæk, Opwis & Bargas-Avila, 2012). However, whether the hedonic quality is seen as influential to the pragmatic quality, or the other way around, it appears that there exists some relational connection between these two factors. Also, regardless of which of these two factors is more responsible for the positive UX, it is about the fulfilment of user's needs reflected to those valued quality features. That is, the fulfilment of user's needs presumes that the product actually is responsible for the experience (Hassenzahl et al., 2010).

3.2 Affordances in Online User Experience

It is considered important for the designed object to adapt to both the context of its use and to user's dispositions towards it yet leaving space for other interpretations as well. Accordingly, such design proposals may be approached by affordances in terms of how and to what extent they are perceived. (Pucillo & Cascini, 2014.) Initially, these affordances are defined as directly perceived opportunities of an action that an environment, both natural and artificial, provides to its recipient (Gibson, 1979). Further, as emerging within the interaction between the object and the subject, affordances have been considered to include characteristics of both interaction-participants (Gibson, 1979; Gaver, 1991). Furthermore, since each product and service are seen to have its own predictable affordances, the affordances in general are considered to always include some relational meaning (Kaptelinin & Nardi, 2012). However, perceiving them may not be self-evident (Norman, 2013), since people do not generally think of a given action if there is no perceptual information about it (Gaver, 1991). This, for one, has highlighted the importance of making affordances perceptible for enhancing the design of user-friendly systems (Gaver, 1991).

In technology use the concept of affordances is mainly adopted as those user-mediated action possibilities (Kaptelinin & Nardi, 2012) derived from the properties and functions of a product or service (Norman, 2013). Moreover, these action possibilities provided by technology are considered within two facets of affordances: the possibilities for interacting with the technology (i.e. handling affordances) and the possibilities for employing the technology to make an effect on an object (i.e. effecter affordances) (Kaptelinin & Nardi, 2012). Yet, to utilize those action possibilities provided requires that they are detected from the product interface to begin with. Accordingly, it requires the process of constructing the ways of interaction with the interactive object. This process is known as the meaning-making of which is considered to include functional bases of both the product designer and the product user (Xenakis & Arnellos, 2013). Next, this meaning-making process will be discussed more on the user's behalf in terms of interactive affordances.

User meaning-making of interactive affordances

According to Xenakis and Arnellos (2013) an interactive product, such as a website, represents the communicative medium through which each design-participant constructs those available ways of interaction that further lead to meaning-based actions. Thus, considering the design-participant as the user, the process of meaning-making is mainly based on the detection of those interaction potentialities (i.e. interactive affordances) that meet user's presuppositions for action possibilities (Xenakis & Arnellos, 2013). Hence, as much as perceiving affordances are linked to their achievability, it is considered more important to meet the user's disposition towards them. That is, to

experience affordances the user is required to be in a proper usage mode (Pucillo & Cascini, 2014). This indicates that the detection of interactive affordances emerges primarily as the consequence of those mental and bodily processes that assign values to objects (Xenakis & Arnellos, 2013). Now, if the user's disposition is directed towards the design process, the meaning-making process towards the detection of interactive affordances and further action selection can be presented according to three phases (Figure 3). Moreover, these phases occur cumulatively starting with: (1) Aesthetic experience with positive value; which leads to (2) Positive anticipation of interaction; and (3) Enhancement of the detection of interactive affordances (Xenakis & Arnellos, 2013).

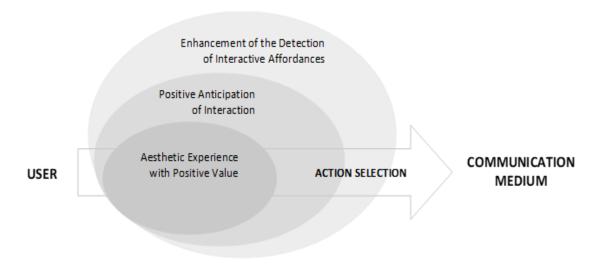


FIGURE 3 User's meaning-making in the design process (simplified model from Xenakis & Arnellos 2013, 68)

According to the model, the user values the experience with the communicative medium, for example a website, either positively or negatively. Thus, in the case of positively valued experience, the user's emotional reactions are reflected as aesthetic pleasure. As for negatively valued experience, the user's emotional reactions towards the communication medium are reflected as aesthetic pain. (Xenakis & Arnellos, 2013.) Further, considering the outcome of aesthetic experience, it is related to the extent of which affordances offered during interaction contribute the fulfilment of user's psychological needs (Pucillo & Cascini, 2014). That is, whether the aesthetic experience is deemed as being positive or negative, it affects how the anticipation regarding the fulfilment of one's goals is valued (Xenakis & Arnellos, 2013). In other words, positively (negatively) valued experience also results in positively (negatively) valued anticipation, which eventually affects both the detection of affordances and the selection of best action for the interaction.

3.3 User Experience and Customer Experience

As previously discussed, an online store atmospherics may trigger certain emotional states of a consumer leading to either positive or negative experiences based on various emotional, perceptual, situational and behavioral factors included in consumption (Kawaf & Tagg, 2017). This implies the experientiality of consumption (Holbrook & Hirschman, 1982) being as equally important within online context as it is considered offline. Such experientiality, however, may turn out to be partly defective, since due to the lack of direct experience, a website may leave a consumer less emotionally engaged in shopping experience (Jiang & Benbasat, 2004.) Given this, it is stated that creating a memorable online shopping experience mainly depends on the extent to which a consumer feels s/he is participated and absorbed during the consumption (Chang, Yuan & Hsu, 2010). Hence, especially due to the role of cognitive absorption as one main determinant for perceived usability (Agarwal & Karahanna, 2000), the creation of OCE should also consider those other UX related factors influencing online shopping experience.

To frame the interface of online user experience (OUE) within OCE, the creation of the model (Figure 4) was started by considering the structure of UX within online environments. That is, UX design should start by framing the internal and external aspects of interaction between the product, the user and the context (Pucillo & Cascini, 2014). Accordingly, the basis of model considers OUE within two following levels (Castañeda et al., 2007): type of online activity and reference level. Of these, the first refers to those functions that a consumer performs online, and the second to those levels of experience related to an online environment. These levels may, for example, include experiences with technology used for performing online actions or the visits in previous websites (Castañeda et al., 2007). Relating to the work by Rose et al. (2012), the model views the two levels of OUE as occurring within both CES and AES. Further, acknowledging that emotion-based decisions can be as rational and valid as decisions based on information-processing (Solomon, Russell-Bennett & Previte 2012, 250), the model considers both CES and AES as equally significant.

Based on the model (Figure 4), OUE is seen as influential to overall OCE through perceived customer value, which reflects the assessment of website's overall quality. More accurately, perceived customer value is here seen as the outcome of those evaluative judgements of an online store's website (Woodruff, 1997) made before and after its use (Heinonen & Strandvik, 2009). Further, this assessment considers both pragmatic and hedonic quality of which the first represents the observations made from website's usefulness and ease of use (Hassenzahl et al., 2010; Rose et al., 2012; Skadberg & Kimmel, 2004), and the latter the pleasure experienced in its use (Childers et al., 2001; Hassenzahl et al., 2010). To understand the influence of OUE on OCE especially in terms of consumer behavior, the idea behind the model (Figure 4) is viewed in more detail through another model constructed (Figure 5).

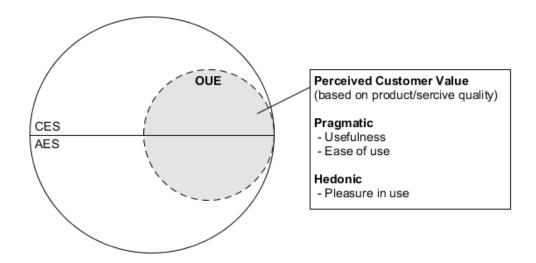


FIGURE 4 The Interface of OUE within OCE (constructed based on articles by Hassenzahl et al., 2010; Heinonen & Strandvik, 2009; Rose et al., 2012)

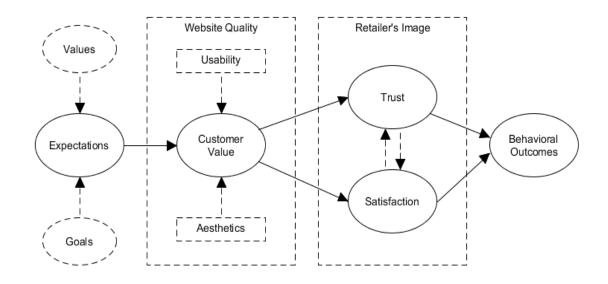


FIGURE 5 The Influence of OUE within OCE (constructed based on articles by Chang & Tseng, 2013; Flavián et al., 2006; Morgan-Thomas & Veloutsou, 2013; Porat & Tractinsky, 2012; Verhagen & Van Dolen, 2009; Wu, 2013)

The basis for the model (Figure 5) begins with acknowledging those expectations of which a certain consumer may have for the website. Further, these expectations are related to one's goals (Sheth & Parvatlyar, 1995) and values (Chang & Tseng, 2013). Of these, values may have the influence on one's estimation related to those benefits perceived through the website (Heinonen & Strandvik, 2009; Lemke et al., 2011). As for goals, which are considered to depend on one's needs, they may dictate the progression of experience as well as those perceptions of the retailer and the satisfaction experienced. Basically, the difference in consumers' goals are that they may result to various outcomes and feelings produced by the same retail environment (Puccinelli et al., 2009).

In the end, both values and goals, whether they relate more to utilitarian or hedonic aspects, are reflected to the fulfilment of consumer's expectations (Wu, 2013). Yet, due to acknowledging that the extent to which one's goals and values are present may vary based on both the nature of consumption and individual differences between consumers, both factors are marked using dash lines (Figure 5).

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As for considering the fulfilment of consumer expectations² further, the model views it through the assessment of website quality based on which the image of a retailer is constructed. To be precise, this linkage between the website quality and the retailer's image is here based on online store attributes utilized for the total impression formed against online store's tangible/functional and intangible/psychological factors (Verhagen & Van Dolen, 2009). Further, since the perception of online store attributes is also utilized for constructing the ways to understand the properties and functions included in the website, they are described here as counterparts for website affordances (Norman, 2013). These affordances, in turn, are approached by dividing them into those that reflect either website usability or website aesthetics. This division is made due to the pragmatic and hedonic online store features which are stated to instantiate broader design concepts of usability and aesthetics (Porat & Tractinsky, 2012). Relating to this, affordances utilized for creating website aesthetics are not considered here to only increase the hedonic quality of an online store, but also to contribute those perceptions made of website usability (and thus the pragmatic quality) as well (e.g. Sonderegger & Sauer, 2010). Therefore, it is possible within both cases for a consumer to feel either aesthetic pleasure or pain (Xenakis & Arnellos, 2013).

To recap earlier, based on the perceptions of website quality a consumer does not only assess the attained value-in-use (e.g. Heinonen & Strandvik, 2009) but also the trustworthiness of a retailer (e.g. Everard & Galletta, 2005). Accordingly, the model views these effects of customer value on retailer's image mainly through two factors of satisfaction and trust. Further, the level of these two factors is considered to determine the behavioral outcomes of a consumer towards an online store (Figure 5). Considering first the level of satisfaction, it includes here the alternative feeling of regret as well (Liao et al., 2017). Basically, when a consumer is satisfied with the website quality (Flavián et al., 2006; Wang et al., 2011) and feels that an online store is being able to fulfill his/her expectations (Chang & Tseng, 2013; Flavián et al., 2006) s/he may express loyalty (Shankar et al., 2003) and engagement towards the online retailer (Wu, 2013). Considering the level of trust, in turn, it combines the assessment of retailer's competence, benevolence and integrity (Kuan & Bock, 2007; McKnight et al., 2002). In this respect, trust is considered to affect both consumer's behavioral intentions and emotional ties with the retailer (Morgan-Thomas & Veloutsou, 2013). For example, if a consumer perceives any errors, poor style or incom-

² Although considered here mainly as influential to a consumer's pre-purchase behavior, the model acknowledges the effect which the confirmation of expectations may also have on behavior after a period of initial consumption (Wu, 2013).

pleteness of a website (Everard & Galletta, 2005) s/he may also be less willing to associate with the online store (Cassell & Bickmore, 2000; Wang et al., 2011).

To sum up the main idea behind the model (Figure 5), it views the perception of website quality as the ultimate mediator of consumer's behavior towards an online store (Morgan-Thomas & Veloutsou, 2013). To be precise, it may affect the behavior either through satisfaction or trust, but the influence between these two may also be mutual. That is, the level of satisfaction may also contribute the level of trust (Grabner-Kraeuter, 2002; Hsu & Tsou, 2011) as well as trust may mediate the feelings of satisfaction (Rose et al., 2012). Additionally, the perceptions of website quality are reflected to one's expectations for the website to assess the customer value attained from using the online store.

4 ONLINE SHOPPING BEHAVIOUR

Among any service environment, consumer's decision-making process related to products and services is considered to include both direct and indirect effects on one's behavioral intentions (Cronin et al., 2000). Within the online context, this decision-making can be seen to influence more or less on consumer's preferences for shopping online (e.g. Khalifa & Liu, 2007). Yet, even consumers without actual intentions to buy online may utilize Internet for their decisionmaking, for example by obtaining information related to offline buying (Ahuja, Gupta & Raman, 2003). Hence, it is likely that some part of the shopping process happens online (Kahn, 2017). As for consumer's likelihood to choose a certain website among various online shopping environments, it may be affected by those design elements included in the website. For example, the ability to easily process the information provided by categorizing and filtering may affect the perceived attractiveness of the website (Kahn, 2017). Consequently, perceptions of high quality website in relation to its attributes may also lead to positive attribute assumptions of the retailer's image as well (Hassenzahl, 2004; McKnight et al., 2002; Verhagen & Van Dolen, 2009).

This chapter discusses about those website attributes related to consumer's perceptions about the website quality. Further, based on the thesis objective, this discussion is narrowed to those attributes reflecting a consumer's impressions about online store's usability, aesthetics and trust. Prior to this, the chapter first views those subjective characteristics of a consumer which are considered to form the internal basis for one's behavioral intentions to shop online.

4.1 Relational Shopping Behaviour

Consumers may engage in shopping behaviour due to diverse personal, social and institutional influences. For example, a consumer may adjust the motivations for shopping in relation to its personal convenience (Ganesh et al., 2010) which for one, can be affected by individual's demographics and lifestyle

(Mahmood et al., 2004). Also, different cultural variables (Mahmood et al., 2004) considering other social factors, such as family interests, social norms and peer group pressures (Sheth & Parvatlyar, 1995), may influence one's behavior. As for matters like government policies and regulations, religious beliefs, employers' influences and marketing policies, they may also determine the way one behaves online (Sheth & Parvatlyar, 1995). These represent a few examples of how one may adjust behavioral patterns towards online shopping.

Yet, whether the behavior is an outcome of rather internal or external influencers (or a combination of both), this thesis is more interested in those psychological factors behind consumer's behavior. Therefore, the attention is here drawn to individual's attitudes and preferences for shopping, emotions behind the behavior, and trust as the psychological factor of consumer's behavior.

Attitudes and preferences for online shopping

The construct of attitudes includes both the individual's emotion and cognition in terms of how one feels about the attitude object and what beliefs s/he holds about it (Solomon et al. 2012, 209). Hence, one's attitudes for online shopping may impact the evaluation of online retailer's products and services. This evaluation, in turn, leads to those behavioral patterns both before and after purchasing (Puccinelli et al., 2009). Attitudes therefore, may also arise based on changes in events, although they are usually stored and retrieved (Bagozzi, Gopinath & Nyer, 1999). For example, if one's evaluation of the purchased product is negative, it may turn consumer's previously favorable attitude opposite. Accordingly, memory may also determine one's attitudes in terms of recalling previous product use (Puccinelli et al., 2009).

In a way, consumer's attitudes can be seen to reflect the level of satisfaction experienced with online stores (Flavián et al., 2006). Consequently, this connects attitudes with consumer's preferences. These preferences refer to those attribute-based desires reflected to attained customer value: a product or service performance is measured based on those desired values related to product/service attributes and goals of use situations (Woodruff, 1997). Moreover, since consumers behavior may be derived from both instrumental and hedonic values, both may also have an influence on one's preferences and attitudes. Yet, it is possible for hedonic features to have more significant influence within online shopping environments in which consumers tend to expect to find more enjoyment than with physical environments (Childers et al., 2001).

Within online stores, consumers attitudes related to enjoyment may be based on those evaluations of website usability and aesthetics, since they both seem to mediate the feelings of pleasure (Porat & Tractinsky, 2012). Alongside enjoyment, online shopping attitudes may also be influenced by the interactive experiences of navigation and substitutability in the website: a consumer may form a favorable attitude against the website that offers alternative ways of finding product-related information, or substitute ways for examining a product in-person (Childers et al., 2001). Interactivity of the website may also influence on consumers online shopping preferences by contributing the feelings of

comfort and social presence. Mainly, this relates to perceived social presence of the retailer: the fulfilment of a consumer's social needs along with the experiences of flow and strong social presence may motivate a consumer to engage in further online interaction activities, such as receiving recommendations and sharing commercial information (Zhang et al., 2014).

Emotions behind online shopping behaviour

Regarded as mental states of readiness resulting from cognitive appraisals of events and thoughts (Bagozzi et al., 1999), the role of emotions is considered as solid in online shopping. That is, a consumer is more likely to experience any emotion during shopping instead of experiencing no emotions at all (Éthier et al., 2006): Generally, the more positive the online shopping experience is evaluated, the higher the intensity of positive emotions, such as liking and joy, is felt. As for the evaluation of experience being rather negative, the more likely it results as feelings of dislike and frustration. Consequently, emotions can be regarded as experiences themselves, since they occur when an individual categorizes his/her internal state (Barrett, 2006).

When an emotion is triggered, it produces a set of recognizable behavioral and psychological outcomes that constitute the components of emotional response (Barrett, 2006). And since emotions felt in the early stage of implementation may influence the later use of technology (Beaudry & Pinsonneault, 2010), these responses may subsequently result to a tendency of either approach or avoid an online store (Porat & Tractinsky, 2012). Yet, experienced emotions do not cause the actual behavior of a consumer (Barrett, 2006), but instead they influence it through information processing, mediating responses and goal setting (Bagozzi et al., 1999). Hence, emotions related to technology use can be seen to trigger such intermediate adaptation behavior which either increases or decreases the felt emotions (Beaudry & Pinsonneault, 2010): For example, the feelings of excitement may result in task adaptation and thus reinforcing the positive effect of initial feelings. Instead, the feelings of anger and anxiety may result in seeking social support resulting in decreased feelings experienced.

Relating to emotions, also moods may affect those changes of consumer behavior. The main difference between moods and emotions is that emotions are linked to certain objects, whereas moods are general states of feelings (Solomon et al. 2012, 209). Moods may have both direct and indirect effects on individual's behavior, evaluation and recall (Gardner, 1985). For example, they may define one's information processing or the way of interaction (Puccinelli et al., 2009). This effect may be bimodal since a consumer may choose to either perform or avoid consumption-related behavior depending on mood-related assessment of probable shopping outcomes. For example, a consumer bad mood may choose to shop so that s/he would feel better. (Gardner, 1985.)

Trust as a mental shortcut for behaviour

Consumer behaviour is largely determined by memory encoding, storage and retrieval (Puccinelli et al., 2009). Further, as a consumer needs to maintain all the relevant options in working memory, these memory-based choices are associated with greater cognitive load (Rottenstreich, Sood & Brenner, 2006). Consequently, although online shopping includes the ability to obtain information and make comparisons easily, it can also lead to information overload. Further, it may even turn the consumer off from online shopping (Ahuja et al., 2003.) Thus, limited cognitive resources in relation to extensive amount of electronic markets to choose from may require a consumer to reduce uncertainty and complexity of transactions and relationships by applying so called mental shortcuts (Grabner-Kraeuter, 2002). That is, to simplify one's decisions a consumer may apply certain decision rules as substitutes for other dimensions. Further, especially in situations with limited problem-solving, these mental rules may be relied on in order to speed one's decision-making process (Solomon et al., 2012, 268). One such effective mental shortcut for behavior is considered to be trust.

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When facing insufficient rules and customs, trust and familiarity tend to be the primary means for a consumer to reduce uncertainty (Gefen & Straub, 2004). Hence, the formation of trusting intentions towards a certain online retailer may vary based on its familiarity and initial trusting beliefs formulated for it. In the case of a multi-channel retailer, for example, the familiarity of its offline actions may also contribute those trusting beliefs in its online actions. Specifically, the beliefs in competence, benevolence and integrity of a retailer's offline presence may formulate the initial trusting beliefs in its online counterpart (Kuan & Bock, 2007). Moreover, perceptions of the brand in terms of its expertise and trustworthiness (i.e. brand credibility) may also influence on one's evaluation of risks in consumption situations. Further, although perceiving risks mainly relate to individual's tendencies to feel concerned (Erdem & Swait, 2004), they may mitigate the role of perceived values and further influence on purchasing intentions (Chang & Tseng, 2013).

The former examples included rather the cases of familiar online retailer or brand. Conversely, picturing that a consumer visits the online store of an unknown retailer from which s/he may or may not have any information about beforehand. Then, a consumer needs to form those initial trusting beliefs based on the perceptions made from the website (Hampton-Sosa & Koufaris, 2005). Basically, these perceptions can be made by a consumer itself, or gained from perceptions of other consumers who have had any (previous) relations with the online store. In the case of perceptions made from other consumer especially those related with positive buying situations seem to have an influence on individual's trusting beliefs towards the retailer (Lu et al., 2016). As for those perceptions made by individuals themselves, the intentions to trust are mainly based on one's judgement of trust related attributes perceived from the website (McKnight et al., 2002).

4.2 Online Store Attributes

As previously established, through the website a consumer gathers information based on which the impressions of the retailer are formed (Everard & Galletta, 2005). However, it is possible that a consumer already has established some intitial impressions about the online retailer before the first website visit. In such cases it is more accurate to consider the website as the first experiential taste of e-vendor's presence which may either confirm or change consumer's initial impressions of the retailer (McKnight et al., 2002). Yet, within both situations the retailer's website functions as the primary means to carry out positive online experience for consumers (Constantinides, 2004). This online experience, as stated earlier, can be influenced through website attributes mediated to consumers through interactive affordances (Kaptelinin & Nardi, 2012; Verhagen & Van Dolen, 2009).

One possible way to design for online experience is through categories of functional, psychological and content elements. Of these, functional elements consider usability and interactivity of the website, psychological elements trust and credibility of the retailer, and content elements aesthetic aspects of the website layout (Constantinides, 2004). Moreover, based on the literature viewed, these categories are considered somewhat complementary to each other. That is, perceived aesthetics are seen to contribute to feelings of pleasure mediated by perceived usability (Porat & Tractinsky, 2012) which, in turn, is seen to contribute the level of trust experienced towards the retailer (Flavián et al., 2006). Accordingly, since the current study is interested in those precise attributes related to usability, aesthetics and trust, these three will be viewed next more closely.

Attributes reflecting usability through aesthetics

As stated earlier, the product/service related experience is often considered as positive and personally significant, when it fulfills one's psychological needs (Hassenzahl et al., 2013). However, when creating a positive OCE, along with addressing consumer expectations an online store also needs to be able to provide assistance in those steps of online transactions took in its website (Constantinides, 2004). Basically, a consumer needs to be convinced that the website quality is both timely and accurate, providing useful information (Everard & Galletta, 2005). Further, given that any design feature may have the effect on consumer's likelihood to choose a certain website (Kahn, 2017), it is accurate to consider those features carefully in order to enhance the feelings of pleasure and thus affect favorable attitudes of a consumer (Porat & Tractinsky, 2012).

Relating to an online store's image, the most important website features affecting consumer's assessment of the website are stated to be its style, usefulness and ease of use (Chang & Tseng, 2013). Accordingly, the creation of pleasurable shopping experience should also focus on those attributes that reflect positive perceptions of both website usability and aesthetics (Porat &

Tractinsky, 2012). Considering first those attributes that reflect website's usability, this thesis agrees with the work by Flavián et al. (2006) by appointing five main factors of it (modified list):

- 1. The ease of understanding website's content, structure and functions
- 2. Simplicity of the website use
- 3. The speed of finding relevant information (to perform one's actions)
- 4. The ease of navigation (in terms of time and actions required to obtain the desired results)
- 5. The ability to control one's actions

In addition to the fifth factor on the list, the amount of control provided is considered here to affect the extent of how helpful a shopping experience is regarded for evaluating a product (Jiang & Benbasat, 2004). Further, it is considered to include both visual and functional control discussed earlier in the thesis. Considering the attributes of website aesthetics, in turn, within this thesis they are approached as style elements of which are utilized for creating the perceptions of pleasant website in terms of its usability. Accordingly, this is implemented by dividing them into factors that reflect either website's aesthetic formality or aesthetic appeal (Wang et al., 2011). This division constructed is represented below (Table 1):

TABLE 1 The aesthetic constructs of website usability

Appearance	Constructs of usability	Related article(s)
	· Information accuracy and punctuality	· Éthier et al. (2006); Everard & Galletta (2005)
	· Information validity	· Hsu & Tsou (2011)
Aesthetic formality	· Possibilities of navigation (categorizing/filtering)	· Elliot & Fowell (2000); Kahn (2017)
	· Accuracy of language and technical functions	· Everard & Galletta (2005)
	· Pleasantness of overall quality	Porat & Tractinsky (2012); Xenakis & Arnellos (2013)
Aesthetic appeal	· Colors, graphics and images used	· Wang et al. (2011)
	· Quality of product descriptions/-pictures	· Jiang & Benbasat (2004); Verhagen et al. (2014)

The table, based on the articles viewed previously in this thesis, represents seven main dimensions of website aesthetics considered as influential to perceived website usability. Further, the division of these dimensions is done based on the assessment of whether they relate more to aesthetic formality or aesthetic appeal. Accordingly, this table is utilized for the thesis empirical half as well.

Attributes reflecting trust

Consumers' concerns related to security and privacy are stated to form the biggest barriers for online shopping (Ahuja et al., 2003). That is, as they predict the assessment of retailer's trustworthiness (Grabner-Kraeuter, 2002), both the level of security and privacy are considered to relate the feelings of comfort and willingness to provide personal information (Wu, 2013). Considering the assessment of retailers' trust, in turn, it is stated to be the type of trust that determines implications for consumer behavior. Basically, trusting an e-vendor to commit on delivering the order cannot be regarded as the same as trusting an e-vendor to use ethically the data gained from consumers' online actions (McKnight et al., 2002). Accordingly, trust in e-vendor can be divided into further constructs of consumer's trusting beliefs and trusting intentions (Figure 6). Of these, trusting beliefs are reflected towards e-vendor's competence, benevolence and integrity. Intentions to trust are viewed in terms of the consumer's willingness to depend (i.e. one's volitional readiness to be dependent) on the system, and the subjective probability of depending (i.e. one's perceived likelihood to be dependent). Further, these two are mediated by (initial) trusting intentions a consumer holds against an e-vendor (McKnight et al., 2002).

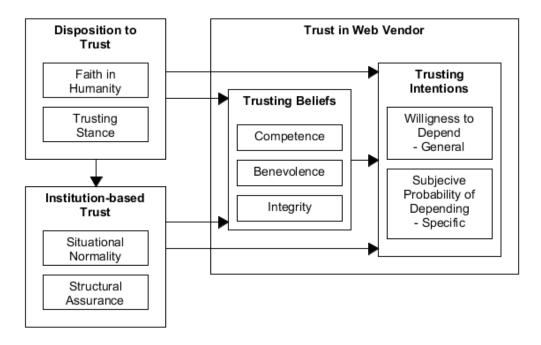


FIGURE 6 Constructs of online trust (simplified model from McKnight et al. 2002, 341)

Considering the model on the consumer's behalf (Figure 6), the level of trust experienced towards an e-vendor is also mediated through one's disposition to trust in terms of faith in humanity and disposition to trust. Of these, faith in humanity considers one's general belief related to competence, benevolence and

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integrity of others, and trusting stance to one's personal approach to deal with others' trustworthiness (McKnight et al., 2002). Basically, this construct of trust can be regarded as the basis for any kind of interpersonal interaction with others (Cassell & Bickmore, 2000). Along with its direct impacts, consumer's disposition to trust is seen to mediate trust in e-vendor via the perceptions of institutional environment (i.e. institution-based trust). Further, these perceptions, which in this scenario relate to online environment, are reflected towards its situational normality (competence, benevolence and integrity) and structural assurance (legal and technological structures building its robustness and safeness) (McKnight et al., 2002). In respect of the presented model, it is important for an e-vendor to build its trustworthiness through establishing a reliable website in terms of situational normality and structural assurance. As for the type of online store attributes needed for this establishment, the current study approaches them through the following main website-based antecedents of online trust (Beldad, De Jong & Steehouder, 2010)³:

- 1. Perceived ease of use of the website
- 2. Information quality
- 3. Graphical characteristics
- 4. Social presence cues
- 5. Privacy assurances and security features
- 6. Third-party guarantees

Since the first three antecedents presented above are considered as somewhat equal to those attributes viewed within perceived website usability and aesthetics, the inspection is here focused on the latter three antecedents. Starting with the privacy assurances and security features, these two are regarded as one of the central means to establish a reliable website. For one, a website with a clearly stated privacy policy is seen to indicate the willingness of an e-vendor to engage in fair information practices. Relating to this, it is considered to be more about the presence of this privacy policy rather than its content, since a few consumers actually read it. Further, the presence of it does not necessarily mitigate the safety concerns of a consumer. (Pan & Zinkhan, 2006.) This is due to the fact that the secure payment, instead, the existence of guarantee policies (e.g. in case of damages), may also significantly reduce a consumer's feelings of safety related uncertainty (Spremann 1988, according to Grabner-Kraeuter, 2002). It is possible that consumers place security features even higher than privacy, since those are often better understood and easier to identify. Yet, both of these features may also be as equally ineffective to earn consumers' trust since

³ In their article, Beldad et al. (2010) review some of the main antecedents of online trust studied throughout literature. Based on the gained results, they divide the antecedents into three clusters: 1. customer/client-based, 2. website-based, and 3. company/organization-based. Relating to the second cluster presented here, the article also considers the seventh website-based antecedent of personalization/customization. However, due to its slightly studied influence (and the perspective of the current study) this antecedent is not included here.

other characteristics of an online store (such as e-vendor's reputation or its website's appeal) may be of more influence. (Beldad et al., 2010.)

Finally, considering the influence of social presence cues on trust (Beldad et al., 2010), these cues are stated to increase consumer's trusting beliefs towards e-vendor (Lu et al., 2016) especially in terms of benevolence (Gefen & Straub, 2004). To be precise, they are stated to influence on consumer's loyalty both directly and indirectly through perceived usefulness, trust and enjoyment (Cyr, Hassanein, Head & Ivanov, 2007). That is, the higher the level of perceived social presence, the more useful, enjoyable and trustworthy an online store is experienced, and the more favorable attitudes against its use are formed (Hassanein & Head, 2007). As for the ways to convey a sense of social presence through its website, an e-vendor may, for one, offer an opportunity for a consumer to use online chat tools. Moreover, by choosing special words and sending emotional icons, such as smileys, an e-vendor may also utilize these tools to create the sense of its attitudes, benevolence and integrity for consumers (Lu et al., 2016). Another effective way for an e-vendor to enhance the sense of human warmth in its website is through socially rich descriptions and pictures which help to evoke positive emotions and further favorable attitudes among consumers (Hassanein & Head, 2007).

5 RESEARCH METHOD

This chapter introduces the thesis' empirical part of which main objective was to study the relationship between perceived website usability and trust in an online store. Accordingly, the aim was to look further into the second research question defined for the thesis:

• How does user meaning-making of an online store's usability influence the customer experience in terms of trust?

The study objective was approached through conducting a questionnaire study next introduced in detail. To be precise, this chapter is proceeded through by first exhibiting the research area in terms of literature discussed earlier followed by the introduction of a design and equipment utilized in the study. Finally, the chapter discusses the procedure followed and presents the participants attended in the study.

5.1 Research Area

The reviewed literature has shown the mediating role of both website usability and trust in online shopping experience. Website usability, for one, is considered to affect the relation between the assessment of website quality (Éthier et al., 2006; Hassenzahl et al., 2010; Rose et al., 2012) and feelings of satisfaction (Elliot & Fowell, 2000; Flavián et al., 2006; Hassenzahl, 2004). As for trust, it is partly viewed in terms of consumers avoid and/or approach tendencies towards online store (Everard & Galletta, 2005; Porat & Tractinsky, 2012) based on perceptions made about its competence, benevolence and integrity (Kuan & Bock, 2007; McKnight et al., 2002). Yet, as the literature discussed within this thesis implies, these two mediating variables may also relate to experiences of one another. In particular, based on the implications of viewed literature (e.g. Beldad et al. 2010; Grabner-Kraeuter, 2002; Everard & Galletta, 2005; McKnight

et al., 2002) the current study has taken a particular interest in the relation of usability factors to trust experienced towards an online retailer and its website. And since consumer's perceptions about website quality may be resulted from those subjective reactions against website aesthetic features (Sonderegger & Sauer, 2010; Wang et al., 2011), the relation of website aesthetics and usability has also been considered here as a part of the equation.

In addition to this relation between usability and trust, the current study also approaches the relation between website's social presence cues and online trust. That is, according to previous literature, the higher amount of social presence cues may increase the level of retailer's trustworthiness (e.g. Cyr et al., 2007; Hassanein & Head, 2007; Lu et al., 2016). Based on the research area designated here, the current study applies the following specified list of questions:

- What is the level of validity when evaluating perceived website usability in terms of aesthetic formality and/or appeal?
- On what terms is an online store estimated to be trustworthy?
- How does social presence affect trust?
- What is the relationship through usability related factors to trust?

As the current study is also interested in those individual differences among consumers, the list of research questions is considered especially in terms of relative online shopping behavior. In practice, the questionnaire study (introduced next in detail) also includes a set of questions related to those consumer-specific details which tend to map the behavior of participants within online environments.

5.2 Design and Equipment

The survey questionnaire was implemented with Webropol 3.0 (APPENDIX 1) and it composed total of 30 questions which were divided below two main sections: *UX within Online Stores* and *Trust*. Of these questions, 28 were structured statements with the given answer scale of 1–5 (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree or disagree, 4 = Agree, 5 = Strongly agree). Along with these, the questionnaire included two specified open-ended questions of which the first enquired the participants to describe an online store with great UX (relating thus to the section of UX within Online Stores). The second open-ended question, in turn, enquired the participants to describe a reliable online store (thus relating to the section of Trust). Relating to these, the following Table 2 displays the questions based on the division of sections and those question areas of which they are meant to measure.

TABLE 2 Questionnaire-related question areas

Section	Question areas	Questions
	· Online shopping behavior	1-5
UX within	· Characteristics for an online store with great UX	6
Online Stores	· Perceived usability (aesthetic formality)	7–10
	· Perceived usability (aesthetic appeal)	11-14
	· General experience of trust	15-16
Tours	· Trust in online stores	17-20
Trust	· The effect of social presence on trust	21-24
	· The effect of usability on trust	25-30

In addition to the main questions presented (30 structured and two openended), the questionnaire also included the section of demographic details located at the beginning of the questionnaire form. For this section, the participants were required to disclose their person-specific details of their age, gender, situation in life, education (either current or highest degree) and living distance from the city centre.

5.3 Procedure and Participants

The collection of data was implemented as an online survey during March 2018. Accordingly, the questionnaire was first sent to University of Jyväskylä students (and personnel) via email lists. After this, other potential online store users were approached by releasing the questionnaire in Facebook through which the questionnaire link was also shared onwards by single participants. The questionnaire link was also distributed further utilizing Whatsapp and personal email accounts.

The survey gained a total of 318 participants of which 205 (64,5 %) were women and 110 (34,6 %) were men. Further, one participant replied to be other gender and two participants did not want to reply (total of 0,9 %). The youngest participant was 18 years old, and the oldest 71 years old. Despite the large scale of age, the majority of participants were under 35-years-old (85,6 %). The average age of all participants was 27 years old. When enquired about their situation in life, most participants replied to be either students (66,0 %) or working (25,2 %). Additionally, over 80 % of the participants had completed (or were currently completing) lower or higher academic degree. Additionally, over three quarters of participants (75,5 %) lived under four kilometers away from the nearest city centre. The foregoing demographic details viewed here are also displayed with frequencies in Table 3 below:

TABLE 3 Demographic details of participants

	n	%
Gender		
Women	205	64,5
Men	110	34,6
Other/ Do not want to reply	3	0,9
Age		
18-24	135	42,5
25–34	137	43,1
35–44	33	10,4
45–54	10	3,1
55–64	1	0,3
65–74	2	0,6
Situation in life		
Working	80	25,2
Unemployed	4	1,3
Stay-at-home parent	7	2,2
Student	210	66,0
Retired	2	0,6
Other*	15	4,7
Education		
Comprehensive school	1	0,3
High school / vocational school	44	13,8
Lower academic degree	145	45,6
Higher academic degree	118	37,1
Doctoral school	10	3,1
Living distance from the city centre		
Under 1 km	76	23,9
1–4 km	164	51,6
5–9 km	49	15,4
10–20 km	21	6,6
21–30 km	6	1,9
> 40 km	2	0,6

Relating to the demographic section of Life situation (Table 3), the participants who chose the alternative of 'Other' (n=15) were enquired to specify their choice. Accordingly, two of the participants specified to be postgraduates, ten currently both working and studying, one self-employed, one casual-employed, and one otherwise employed but currently living with rehabilitation allowance.

6 RESULTS

The questionnaire survey implemented in March 2018, aimed to clarify the relationship between perceived website usability and trust in online stores. The survey data (*N*=318) was collected from both through email lists of Jyväskylä University students (and personnel) and social media (mainly Facebook). This chapter views the main results gained from the survey by displaying both the methods and the outcome of analysis. Moreover, the evaluation of analyzed results in terms of their reliability and validity is presented.

6.1 Data Analysis

The survey data transferred from Webropol 3.0 was analyzed with IBM SPSS Statistics 24. The data within this analysis consisted of those structured questions included in the questionnaire. As for the analysis for the complementary two open-ended questions (APPENDIX 1), it was implemented through content analysis. In general, with content analysis is referred to qualitative content analysis and quantitative classification of which both aim to describe data in a condensed form (Saaranen-Kauppinen & Puusniekka, 2006). Within this case, the data was approached through utilizing the latter (i.e. quantitative classification). The given answers for both open-ended questions were analyzed in terms of what was considered relevant for the current study (and thus leaving irrelevant information out). Further, the classification of participants' answers for the first open-ended question (an online store with great UX) utilized those aesthetic constructs of website usability described earlier in Table 1. Instead, the answers of the second open-ended question (characteristics of a reliable online store) were classified in terms of those six main website-based antecedents of online trust (Beldad et al., 2010) represented earlier. In addition to these six antecedents, the category of WOM was also included. Finally, the outcome of content analysis was reflected against the analysis of structured survey questions.

Data distillation and reliability of the structured questions

To compress some of the variables analyzed from the data, the survey questions grouped beforehand (displayed earlier in Table 2) were measured in terms of their reliability. The measurement was applied utilizing Cronbach's alpha (α), which is considered as one of the most common means to measure variable reliability (Metsämuuronen 2011, 544). Based on reliability measures, two sum variables exceeded (or were considered to be close enough) the limiting value of .700. These qualified sum variables are displayed in Table 4. Deviating from the initial purpose, question groups concerning the importance of aesthetic formality⁴, the experience of online store trust⁵ and trust through social presence⁶ were not formulated into sum variables due to their low reliability (α-value under .600). Accordingly, the analysis of these question groups was implemented through approaching component questions individually, but also through implementing comparisons between selected variables.

TABLE 4 Sum variables qualified for the final data analysis

Sum va	riable and its component variables	alpha
The im	portance of aesthetic appeal 7	.676
(11)	For me, the quality of product descriptions and images is important in an online store.	
(13)	Website's visual appearance (e.g. colors and images) is essential to an online store.	
(14)	The pleasantness of a website's visual appearance does not affect the use of an online store.	
The eff	ect of perceived usability on trust	.702
(25)	I trust in online store of which website provides accurate, timely and easy-to-find information.	
(26)	Invalid product information has a negative impact on the reliability of online store.	
(27)	In the case of reliable online store, the website is easy to navigate, and search functions are versatile.	
(28)	Errors in the website language and technical functions mitigate the reliability of an online store.	
(29)	The great quality of product descriptions and images indicates the reliability of an online store.	
(30)	An online store with more visually pleasing appearance is also more trust-worthy.	

For the statistical analysis both sum variables were also tested in terms of their normality of distribution: based on Kolmogorov-Smirnov both sum variables

 $^{^{4}}$ α =.388

 $^{^{5}}$ α =.547

 $^{6 \}alpha = .397$

 $^{^7}$ Initially included claim about the ability of inclusive product description to replace defective product images (question 12) was not approved in the final sum variable due to its low reliability ($\alpha = .561$).

were abnormally distributed. Thus, further statistical tests were implemented with non-parametric tests of Mann-Whitney U and Kruskal-Wallis H (of which the latter with Bonferroni correction). To be precise, Kruskal-Wallis H, i.e. the non-parametric alternative to the one-way ANOVA, is used to determine statistical differences between two or more independent groups. As for Mann-Whitney U, otherwise similar with Kruskal-Wallis H, it is used to determine differences between two independent groups. (Laerd Statistics, 2018.) Along with sum variables, similar statistical tests were also implemented for the individual variables due to their variable type (ordinal). For statistically significant results the effect sizes, i.e. strength of a phenomena (Lenhard & Lenhard, 2017), was also computed with the effect size measure of Cohen's *d*. Finally, due to the use of non-parametric tests the distributions for the variables are displayed using medians instead of mean values.

6.2 Survey Results

Due to the interest of this thesis in online shopping behavior as well, before continuing the questionnaire towards the main questions related to perceived usability and trust, the participants were asked to estimate their own standpoint for using online stores. Accordingly, they were asked to estimate their frequency of online store visits and main purposes of those visits. Further, they were asked to estimate their behavior in terms of relation between online shopping and physical store shopping. Based on the replies, all participants (*N*=318) replied to be using online stores at least on some estimated level (Table 5). Accordingly, 46,9 % of all participants considered themselves as monthly level users, and 20,8 % as weekly level users. Instead, approximately a third of participants (32,4 %) considered themselves as yearly level users.

TABLE 5 Participants' estimation of frequency of online store visits

Frequency of online store visits	n	%
1–2 timer per week or more	66	20,8
3–4 times per month	80	25,2
1–2 times per month	69	21,7
7–11 times per year	50	15,7
3–6 times per year	41	12,9
1–2 timer per year or less	12	3,8
Total	318	100

Participants were also requested to give their primary purposes to visit online stores with the possibility to choose minimum of on and maximum of three alternatives. Accordingly, almost three quarters of all participants (72,3 %) replied to be using online stores for comparing prices and over three fifths (64,8 %) for purchasing (Table 6). Also, approximately half of participants replied to be us-

ing online stores for browsing products (53,5 %) and comparing products (49,1 %). As for other purposes, 18,2 % of participants replied to use online stores for information search and 15,4 % for recreational purposes. Participants were also offered an alternative choice to describe some other purposes not already disclosed in the questionnaire. Accordingly, four replies (1,3 %) given to this alternative related to reading product reviews, inquiring product information, ensuring stock availability within physical store and having larger amount of options.

TABLE 6 Purposes of participants' online store visits

Purpose of online store visits	n of total participants (N=318)	% of total participants
Comparison of prices	230	72,3
Comparison of products	156	49,1
Browsing products	170	53,5
Information search	58	18,2
Purchasing	206	64,8
Recreational purposes	49	15,4
Other	4	1,3

Due to the possibility to choose more than one alternative among purposes disclosed in the questionnaire, the frequencies displayed in Table 6 were also proportioned based on the overall answers given (*N*=873). The division of all answers in question is displayed below in Figure 7:

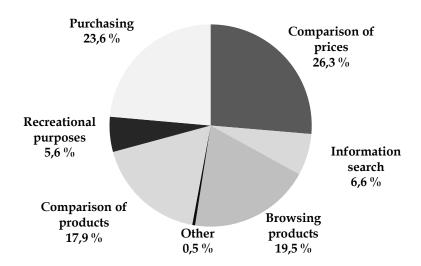


FIGURE 7 The division of online store activities

Continuing the inspection of their online shopping behavior further, the participants were asked to estimate their habits for online shopping against physical stores. Over 90 % of participants (n=287) agreed or strongly agreed to utilize

online stores alongside brick-and-mortar stores. Instead, the division of answers was not as explicit when participants were enquired whether they do business in online stores more often than in traditional brick-and-mortar stores (Figure 8). That is, approximately half of participants (n=156) agreed or strongly agreed to use online stores more often than physical stores. As for the other half, 41, % of participants (n=131) disagreed or strongly disagreed with this, and 9,7 % of participants (n=31) neither agreed nor disagreed. The median of all answers within this question was 3,00.

4. I do business in online stores more often than in traditional brick-and-mortar stores.

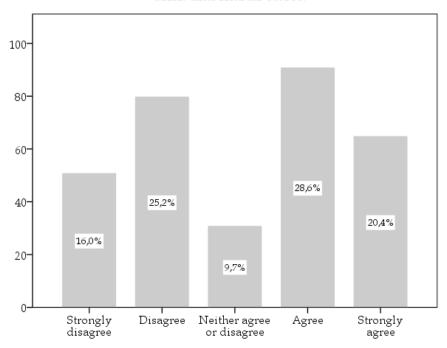
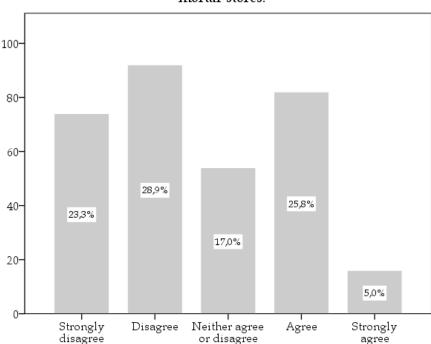


FIGURE 8 The use of online stores compared to offline stores

Relating partially with the previous question, participants were also enquired to disclose whether they prefer doing business only within traditional brick-and-mortar stores. In this case, less than third of participants (n=98) agreed or strongly agreed, whereas more than half of participants (n=166) disagreed or strongly disagreed. Further, 17 % of participants (n=54) neither agreed or disagreed. The median of all answers within this question was 2,00. The division of answers is displayed also in Figure 9.

In summary, all participants did agree on using online stores on some level, although with the varied frequency. They also utilized online stores in a quite versatile manner. The majority of participants used online stores alongside brick-and-mortars, and nearly half estimated their use of online stores as more frequent than visiting offline stores. Additionally, less than half the participants agreed on doing business only within brick-and-mortars.



5. I prefer doing business only within traditional brick-andmortar stores.

FIGURE 9 Preferability of visiting only traditional brick-and-mortar stores

Validity of perceived website usability in terms of aesthetic formality and aesthetic appeal

This section represents the results related to the first specified research question: What is the validity when evaluating perceived website usability in terms of aesthetic formality and/or appeal? First, the participants were required to describe the characteristics of an online store with great UX. All answers received for this question (N=317) were carefully sieved through into twelve categorical dimensions along with their frequencies and further descriptions. Also, the dimensions were grouped based on whether they were regarded as components of either General usability, Aesthetic formality or Aesthetic appeal (Table 7).

Given the overall frequencies of each three main dimensions, the categorical dimensions related to aesthetic appeal had the highest amount of references mentioned in participants' answers (n=310). Of these references, nearly half considered the clarity of the website layout in some way. That is, approximately 45 % of all participants requested that an online store would have clearly structured elements within its website (n=145). Yet, both categorical dimensions of general usability (n=220) and aesthetic formality (n=184) gained a good amount of references as well. To specify some of the descriptions given in Table 7, in terms of information accessibility, information was requested to be found fast and easily especially in terms of contact information and order/payment details. In terms of high-quality product images, instead, the participants who mentioned this factor important also requested that products would be viewed from various angles within several images.

TABLE 7 Characteristics of an online store with great $\ensuremath{\mathsf{UX}}$

	Categorical dimension	N	Further description(s)
ITY	Ease of use	88	 Comprehensible functions Straightforward; requires no instructions Usage is guided with links, menus and push buttons
GENERAL USABILITY	Ease of browsing	27	 Logical Effortless to move between pages Remembers users path (e.g. given search words, a specific place of browsing)
GENEI	Easy to search and compare products	58	Explicit search functionsEasy to narrow down search
	Information accessibility	32	· Information required is easy to access
	Usage with other devices	15	· Easy to use and responsive mobile version
AESTHETIC FORMALITY	Information accuracy and punctuality	70	 Adequacy of information (also in terms of quantity) Explicit product descriptions and prices Explicit terms of use (e.g. payment, delivery, return/exchange) Information and notifications are up-to-dated
IC FOR	Information validity	6	Validity of product specific details (sizes, stock availability, quality of material)
THET	Possibilities of navigation	45	Diverse search functionsPossibility to filter and categorize
AES	Accuracy of language and technical functions	63	 Quick response time with immediate functions Functions properly and efficiently; do not break up or freeze Correct spelling, grammar and syntax
APPEAL	Pleasantness of overall quality	217	 Clarity of the website layout (n=145) Clearly labeled menus and links Explicit product categories No large adds / pop-up windows Personal, modern Well-constructed, high-quality UI
AESTHETIC APPEAI	Colors, graphics and images used	19	Has invested in visual appearanceClear, neutral colorsHigh-quality images
AE	Quality of product descriptions/-pictures	74	 Inclusive product descriptions (with product code and stock availability included) High-quality product images Peer reviews included

In addition to characteristics displayed on Table 7, participants also mentioned some characteristics related to trust (n=37), such as secured payment (n=10) and reliability of company's actions (n=17). Also, many participant's answers composed of characteristics related to service quality (n=207), such as good assortment (n=18) and fluency of ordering in terms of payment, delivery and return/exchange (n=76) . Yet, due to the irrelevance of these factors to the research perspective, they will not be viewed any further.

Continuing to structured questions, participants were enquired to estimate their own standpoint for the set of claims related to perceived website usability. First evaluating the constructs of online store usability in terms of its website's aesthetic formality, participants appeared to be quite unanimous with the claims represented. As seen on Table 8, all participants (strongly) agreed on e-commerce transaction to be pleasant when the information included in the website is accurate, timely and easily found. Participants also (strongly) agreed on the importance of easy website navigation and versatile search functions (99,7 %). In terms of product descriptions as well as language and technical functions, instead, there was a slight disagreement among participants' answers. Yet, in both cases over 96 % of participants (strongly) agreed on the negative impact of invalid product information, as well as errors in website language and technical functions.

TABLE 8 Website usability in terms of aesthetic formality

N=318	5	4	3	2	1	median
7. I experience e-commerce transactions as pleasant when the information included in the website is accurate, timely and easily found.	295 92,8 %	23 7,2 %	-	-	-	5,00
8. I experience that invalid product information weakens the quality of an online store.	247 77,7 %	61 19,2 %	3 0,9 %	2 0,6 %	5 1,6 %	5,00
9. For me, an online store with easy site navigation and versatile search functions is important.	278 87,4 %	39 12,3 %	-	1 0,3 %	-	5,00
10. Errors in the website language and technical functions complicate performing transactions in an online store.	199 62,6 %	109 34,3 %	4 1,6 %	4 1,3 %	1 0,3 %	5,00

As for the second half, the claims dealing with the constructs of website usability in terms of aesthetic appeal was constructed into one sum variable which distribution is displayed in Figure 10. Based on this distribution, the participants mostly agreed on the importance of aesthetic appeal to website usability. Accordingly, the median of all answers was 4,33. Statistical test implemented using Mann-Whitney U indicated statistically highly significant differences between men (n=110) and women (n=205) with the test result Z = -5.2, p < .001, d=.60. Based on this, women evaluated the importance of aesthetic appeal high-

er on average than men. Figure 11 displays the distribution of answers among men (median 4.00) and women (median 4.33).

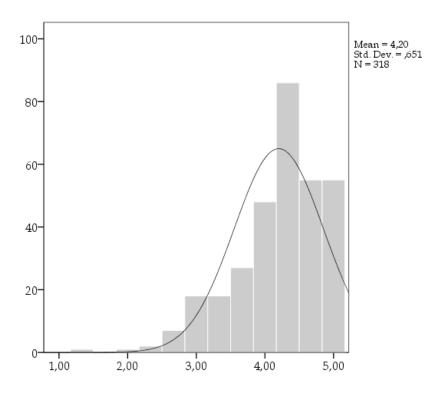


FIGURE 10 The importance of aesthetic appeal

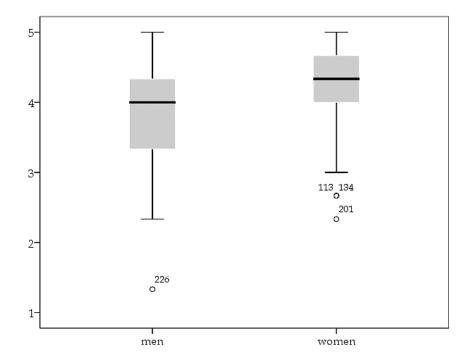


FIGURE 11 Gender-based differences in the importance of aesthetic appeal

Continuing with statistical tests by using Kruskal-Wallis K, the test result H(4) = 11.4, p = .023 indicated statistically significant differences among education.

Further, pairwise comparisons implemented using Mann-Whitney U indicated statistically significant differences between participants with high/vocational school diploma (n=44) and participants with lower academic degree (n=145). The test result for this comparison was Z = -3.0, p = .003, d = .44. On average, participants with lower academic degree (median 4,33) seem to evaluate the importance of aesthetic appeal higher than participants with high/vocational school diploma (median 4,00). More accurate distributions of answers are displayed in Figure 12.

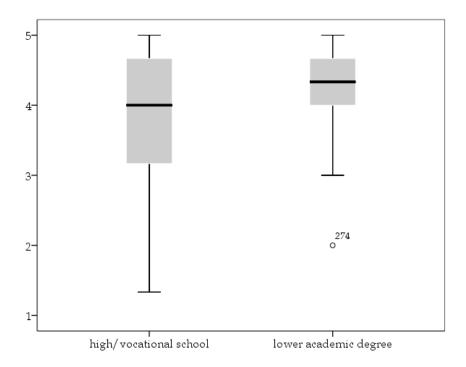


FIGURE 12 The importance of aesthetic appeal based on education

Kruskal-Wallis H test indicated statistically significant differences among living distance with the test result H(5) = 16.0, p = .007. Implementing pairwise comparisons using Mann-Whitney U the result indicated these differences to be statistically significant between participants with the living distances from the city centre under 1 km (n=76) and 1–4 km (n=164). The test result Z = -3.8, p < .001, d = .43 implies that on average, the minor the distance to city centre, the more important aesthetic appeal is evaluated. Yet, as seen in Figure 13, both groups have the same median of 4,33, although the range of answers is broader with participants whose living distance from the city centre is 1–4 km.

Lastly, also relating to those constructs of perceived website usability in terms of aesthetic appeal, participants were enquired whether defective product images can be replaced by an inclusive product description. Accordingly, over 50 % of participants (n=160) either agreed or strongly disagreed, whereas over 40 % (n=132) either disagreed or strongly disagreed (Figure 14). Less than a tenth of participants (n=26) neither agreed or disagreed with this claim. The median of all answers was 4,00.

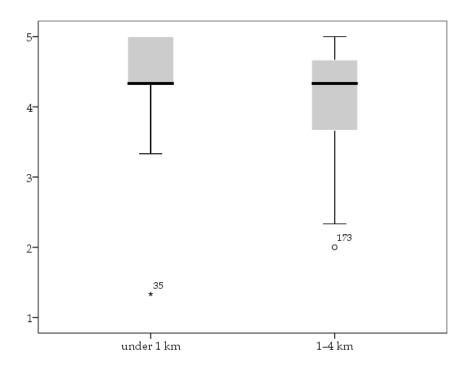
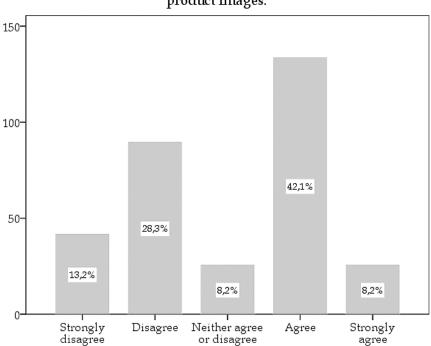


FIGURE 13 The importance of aesthetic appeal based on living distance



12. An inclusive produt description can replace defective product images.

FIGURE 14 Replaceability of product images

Further statistical test of Mann-Whitney U indicated statistically highly significant differences between men (n=110) and women (n=205) with the test result Z = -4.2, p < .001, d=.46. Although the range of answers within both genders was equal, on average women agreed more with the possibility for an inclusive

product description to replace defective product images than men (Figure 15). The median for men was 2,00 and women 4,00.

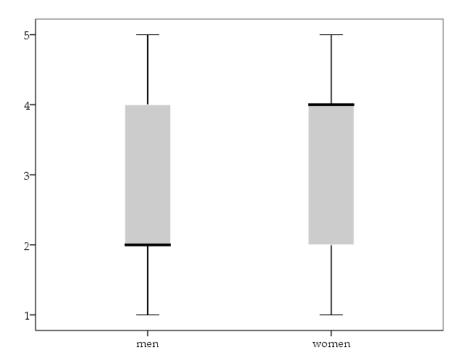


FIGURE 15 The replaceability of product images based on genders

As the results indicate, the level of validity when evaluating perceived website usability appears to be slightly higher in terms of aesthetic appeal than aesthetic formality. That is, based on the sum variable constructed participants mostly agreed on the importance of aesthetic appeal to website usability (median 4,33) which was also supported by the answers for the open-ended question: the characteristics related to pleasant website quality were described within more than 70 % of answers. As for aesthetic formality, although the participants agreed with the claims related to this construct (median 5,00), they did not describe its characteristics within their open-ended answers to an equal extent.

The experience of online store trust

This section represents the results related to the second specified research question: On what terms is an online store estimated to be trustworthy? This section was started by querying participants as to whether they consider it important for an online store to be reliable. For this claim almost every participant agreed or strongly agreed (99,7 %). Participants were also requested to describe the characteristics of a reliable online store. Similar with the first open-ended question, answers received here (N=314) were sieved through and categorized into separate dimensions. Total of 18 dimensions were created with the following six upper dimensions: General usability, Information quality, Graphical features, Social presence cues, Privacy assurances and security features, and Third-party guarantees (Table 9).

Based on the frequencies given, the most common factors that appeared in participants' answers were related to information accuracy and quality (n=145), and accuracy of language and technical functions (n=128). Other factors considered quite important based on participants' answers were related to security features of payment (n=92), and pleasantness of website's overall quality (n=73). In terms of social presence cues, customer service quality (n=60) and availability of organizational information (n=52) were also quite highly valued factors for trust. Instead, given the low frequency of factors related to third-party guarantees (n=34) most participants did not directly reflect the importance of these factors within their answers. To specify some of the descriptions given in Table 9, the participants who mentioned up-to-dated notifications in their answers requested that an online store would keep a consumer well-informed and on time especially within deliveries and any malfunctions appearing at the website. Also, related to pleasantness of website's overall quality participants who requested professional website clarified that the website should not look suspicious or awaken distrust based on its layout and assortment.

TABLE 9 Characteristics of a reliable online store

	Categorical dimension	N	Further description(s)
I.Y.	Ease of use	3	· Ease of search functions
ERA 3ILF	Information accessibility	30	· Information required is easily found
GENERAL USABILITY	Usage within other devices	1	· Scalability
ION Y	Information accuracy and punctuality	145	 Information is accurate Information is complete Information is up-to-dated Clearly displayed terms of use, product details and prices Up-to-dated notifications
INFORMATION QUALITY	Information validity	41	Authentic product descriptions/-imagesPrices are contractualTerms comply with legal restrictions
ZI	Accuracy of language and technical functions	128	 No grammar mistakes or misspellings Consistent and appropriate language; lack of poor translations Is responsive and free of errors; fluent connections with service providers
GRAPHICAL FEATURES	Pleasantness of overall quality	73	 Clarity of the website layout and functions Clean, modern and professional No large adds/pop-up windows Visually high-quality UI
GR/ FE	Colors, graphics and images used	11	Accurate and professional images (i.e. accurate and professional)

SOCIAL PRESENCE CUES	Customer service quality	60	 Available; easy to contact Quick responsiveness (reactivity and problem-solving) Adept, customer-friendly Finnish-speaking
	Organizational information	52	 Basic information available (address, phone number, company ID) Introduction of company background and operational practices Information available also outside store's own website
	Pictures and descriptions	3	· Photographs and introduction of sales personnel provided
S AND	Privacy policies	26	 Confidentiality of customer details (delicacy of data preserving/handling) Collection of personal data explained Do not request unnecessary information Do not track Internet usage history Do not use vague cookies
PRIVACY ASSURANCES AND SECURITY FEATURES	Security features for payment	92	 Clear steps for payment Payment is encrypted Varied /common payment options Confirmation for payment Electrical receipt available
SECU	Security features for delivery	8	Varied/familiar delivery optionsTracking number available
PR	The existence of guarantees	21	 Money-back guarantee Satisfaction guarantee Product warranty Right to cancel/exchange/return order
ARTY TEES	Privacy assurances	15	Secured data transferDo not request browser add-ons
THIRD-PARTY GUARANTEES	Process assurances	7	· The existence of certificates
THIR	Technology assurances	12	Payment is verifiedVerifications are well-displayed
EXPERIENCE OF OTHERS	Website reviews	61	 Availability of customer reviews Great amount of reviews (also outside an online store) The amount of positive reviews
EXP	WOM	15	Friends and acquittancesOther consumers

Along with the characteristics displayed in Table 9, participants' answers also included characteristics which are rather related to organization-based trust antecedents (n=118) and service quality features (n=116). Considering the first category, the factors mentioned included for example online store's reputation (n=20) and operational features (n=29), and familiarity of the company (n=46). Considering the second category instead, the factors mentioned here were mostly related to delivering orders. For example, orders were requested to be correct (n=14) as well as delivered quickly (n=15) and on time (n=32). Yet, due to the irrelevance of these aforementioned factors to the research perspective (i.e. the relation of perceived usability to trust) they will not be viewed further.

Next, participants were presented with a set of claims related to the experience of online store trust in terms of website certificates (question 17), privacy statements (question 18), and positive website reviews (question 19). Accordingly, over four fifths of participants (88,7 %) experienced an online store to be trustworthy when its website contained certificates for safe transactions and payment. As for the existence of privacy statements, over three quarters of participants (77,4 %) agreed or strongly agreed on their influence on online store trust. Similarly, the existence of positive website reviews was (strongly) agreed to be influential by less than three quarters of participants (72,0 %). More accurate distributions for questions 17, 18 and 19 are also displayed in Table 10.

TABLE 10 The experience of online store trust

N=318	5	4	3	2	1	median
17. An online store is trustworthy if its website contains certificates for safe transactions and payment.	137 43,1 %	145 45,6 %	23 7,2 %	8 2,5 %	5 1,6 %	4,00
18. An online store is trustworthy if its website contains a privacy statement for cookies and privacy policies.	94 29,6 %	152 47,8 %	45 14,2 %	19 6,0 %	8 2,5 %	4,00
19. An online store is trustworthy if its website contains positive reviews from other consumers.	71 22,3 %	158 49,7 %	37 11,6 %	43 13,5 %	9 2,8 %	4,00

Participants were also enquired whether they experience it safer to do business on a domestic e-commerce site than on foreign e-commerce site. As seen on Figure 17, 69,5 % of participants (strongly) agreed with this claim, whereas 8,5 % (strongly) disagreed and 11,6 % neither agreed or disagreed. Median of all answers related to this claim was 4,00. Based on further statistical tests, Mann-Whitney U indicated statistically significant differences between men (n=110) and women (n=205) (Z = -2.1, p = .034, d = .22). Thus, on average women considered doing business on a domestic e-commerce site instead of foreign one safer than men. The median for both genders was 4,00 (Figure 18).

20. It is safer to do business on a domestic e-commerce site than on foreign e-commerce site.

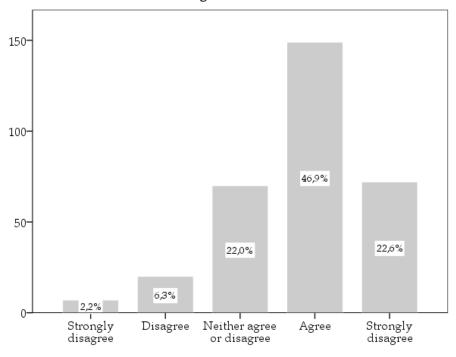


FIGURE 16 Preferability of domestic e-commerce site in terms of safety

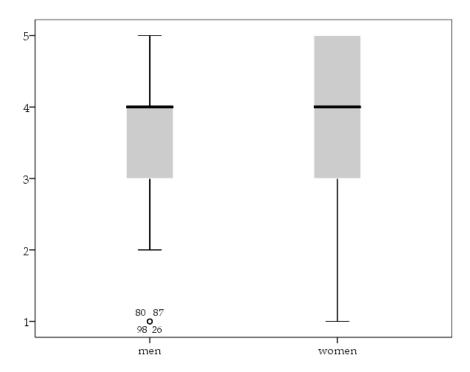
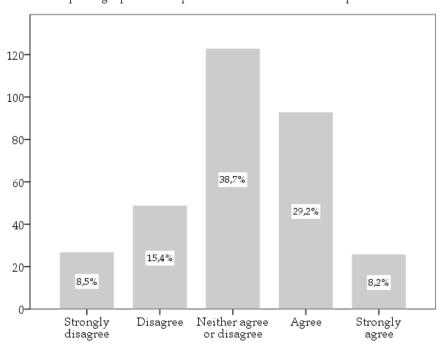


FIGURE 17 Preferability of domestic e-commerce site based on gender

Based on the answers received for the structured claims, the existence of website certificates and privacy statements are at least in most part considered as indicators of trust in online stores. Yet, these factors were not that emphasized within participants' answers for the open-ended question. The case was similar when enquired about the safety of doing business on a domestic e-commerce site over foreign one. As for the influence of positive website reviews, most participants did agree on their influence on trust of online stores, although it was not included within their open-ended answers. Yet considering the influence of website reviews in general, approximately one fifth of participants did mention some factors related to this within their answers.

The effect of social presence on trust

This section represents the results related to the third specified research question: How does social presence affect trust? Accordingly, the claims presented within this section were used to measure whether the factors discussed within the literature view of this thesis actually are considered valid in terms of creating trust within online stores. First, participants were enquired whether they experience an online store to be more trustworthy when its website presents photographs of real persons instead of illustrated pictures. As seen on Figure 19, the range of options for this claim was rather distributed. That is, a slightly over third of all participants either agreed or strongly agreed with this claim (37,4 %). Also, over a third of all participants (38,7 %) neither agreed or disagreed, and less than a fourth of participants (23,9 %) disagreed or strongly disagreed with the claim. Median of all answers was 3,00.



21. An online store is more trustworthy when its website presents photographs of real persons instead of illustrated pictures.

FIGURE 18 The use of photographs instead of illustrated pictures

Variable was also compared in relation to few selected variables measuring the experience of online store trust. Comparisons implemented with Kruskal-Wallis H test indicated statistically highly significant difference with variable 19 (i.e.

the influence of positive reviews on a website) H(4) = 29.3, p < .001. Further pairwise comparisons implemented with Mann-Whitney U indicated statistically significant differences between Likert-scale options 1 and 4 (Z = -3.3, p = .001, d = .49), and 1 and 5 (Z = -3.2, p = .001, d = .74). Moreover, pairwise comparisons also indicated statistically highly significant difference between Likert-scale options 2 and 4 (Z = -3.7, p < .001, d = .52), and 2 and 5 (Z = -3.7, p < .001, d = .71). Based on the results, participants who (strongly) agreed on the influence of positive website reviews, also evaluated the use of photographs instead of illustrated pictures higher than participants who (strongly) disagreed. This indicates that the higher the valuation of positive reviews in terms of trust, the higher the valuation of photographs instead of illustrated pictures as well. The Likert-scale options in terms of frequencies, medians and standard deviations in relation to the influence of photographs instead of illustrated pictures are displayed in Table 11.

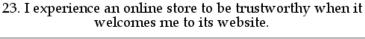
TABLE 11 The relation of positive reviews to the use of photographs

Likert-scale option	n	median	std. dev.
5 (Strongly agree)	71	3,00	0,99
4 (Agree)	158	3,00	0,95
3 (Neither agree or disagree)	37	3,00	0,81
2 (Disagree)	43	3,00	1,18
1 (Strongly disagree)	9	1,00	1,30

Participants were also asked about the absence of company introduction and contact information which over 90 % (n=296) (strongly) agreed to affect the reliability of an online store. Thus, the opinions within this claim may be considered quite unanimous, as the median of all answers was 5,00. Instead, when participants were enquired about the influence of a welcome message, the range of options was varied (Figure 20). That is, nearly half the participants (n=157) neither agreed nor disagreed with the claim that welcoming a user to the website would (automatically) indicate online store's trustworthiness. In fact, only approximately 10 % of participants (n=33) agreed or strongly agreed with this claim. The median of all answers was 3,00.

The relation between the influence of a welcome message and the influence of positive website reviews (question 19) was also tested using Kruskal-Wallis H, according to which the result was statistically highly significant (H(4) = 20.5, p < .001). Further pairwise comparisons implemented using Mann-Whitney U indicated statistically significant differences between Likert-scale options 1 and 5 (Z = -2.4, p = .003, d = .54), 2 and 5 (Z = -3.6, p < .001, d = .68), and 2 and 4 (Z = -2.9, p = .003, d = .40). Based on the results, the participants who strongly agreed on the influence of positive website reviews also evaluated the influence of a welcome message higher than participants who disagreed on the influence of reviews. The Likert-scale options

in terms of frequencies, medians and standard deviations in relation to the influence of a welcome message are displayed in Table 12.



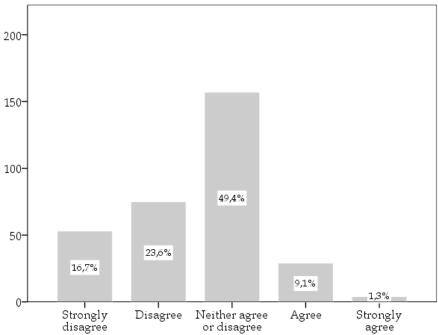


FIGURE 19 The influence of a welcome message

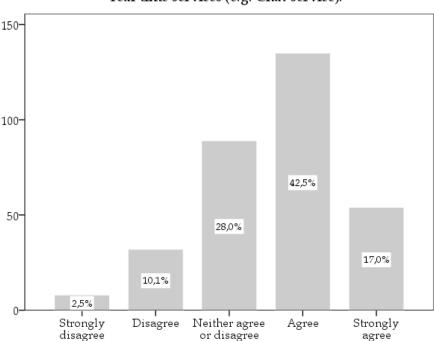
TABLE 12 The relation of positive reviews to a welcome message

Likert-scale option	n	median	std. dev.
5 (Strongly agree)	71	3,00	0,97
4 (Agree)	158	3,00	0,89
3 (Neither agree or disagree)	37	3,00	0,68
2 (Disagree)	43	2,00	0,89
1 (Strongly disagree)	9	2,00	1,05

Lastly, participants were enquired whether they experience an online store to be trustworthy when it offers real-time services. With this claim almost 60 % of participants (n=189) either agreed or strongly disagreed (Figure 21). As for the remainder, 10,1 % of participants (n=32) disagreed, 2,5 % (n=8) strongly disagreed, and 28,0 % (n=89) neither agreed or disagreed with the claim. The median of all answers was 4,00.

Based on the results, social presence can be seen to affect trust in terms of availability and quality of both company introduction and contact information. The validity of these both was also seen within participants' answers for the open-ended question: it was requested that along with the basic information given about the company the website would also include some further information related to company's background and operations. Also, the availability

of real-time services was considered somewhat influential based on participant's answers. Instead, the influence of a welcoming message as well as the use of real photographs instead of illustrated photographs were not considered as influential to trust as other factors.



24. I experience an online store to be trustworthy when it offers real-time services (e.g. Chat-service).

FIGURE 20 The influence of real-time services

The effect of perceived usability on trust

This section represents the results related to the final specified research question: What is the relationship through usability related factors to trust? This research question was approached by estimating the relevance of previously represented constructs of both aesthetic website appeal and formality in terms of trust. To be precise, the participants were enquired whether these usability related constructs were also evaluated as important factors for website trust. Based on the distribution of the sum variable (Figure 22), the majority of participants either agree or strongly agree that factors related to perceived website usability have an influence on trust within online stores. The median of all answers was 4,33.

Kruskal-Wallis H test indicated statistically significant differences in terms of education (H(4) = 16.0, p = .003). Further test of Mann-Whitney U with the test result of Z = -2.8, p = .005, d = .46 indicated statistically significant differences between participants with high/vocational school diploma (n=44) and participants with upper academic degree (n=118). Based on Figure 23, although rather slight differences between the range of answers, participants with upper degree diploma (median 4,50) evaluated the effect of perceived usability factors

on trust higher than participants with high/vocational school diploma (median 4,17).

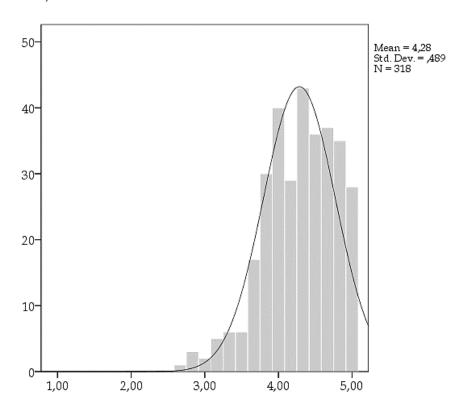


FIGURE 21 The effect of perceived usability on trust

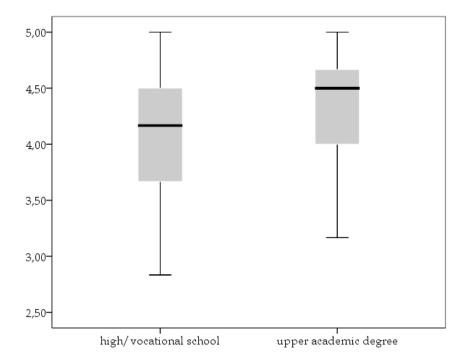


FIGURE 22 The effect of perceived usability on trust based on education

The relation between the sum variable and the selected questions related to both online store trust and social presence was also tested with Kruskal-Wallis H. First, the results discussed compose of questions related to online store trust. Accordingly, Table 13 displays the frequencies, medians and standard deviations of the tested questions 17, 18 and 19 with relation to the sum variable. In terms of the existence of website certificates for safe transactions and payment (question 17), Kruskal-Wallis H indicated statistically significant differences with the test result of H(4) = 17.4, p = .002. Further pairwise comparisons implemented using Mann-Whitney U indicated statistically significant differences between Likert-scale options 4 and 5 (Z = -3.9, p < .001, d = .48). Based on this, the participants who strongly agreed that the existence of certificates for safe transactions and payment indicates trust within online store, also evaluated the influence of usability related factors on trust higher than participants who agreed with question 17.

TABLE 13 The relation of online store trust to usability factors of trust

Related question	Likert-scale option	n	median	std. dev.
17. An online store is trustworthy if its website contains certificates for safe transactions and payment.	5 (Strongly agree)	137	4,50	0,44
	4 (Agree)	145	4,17	0,47
	3 (Neither agree or disagree)	23	4,33	0,59
	2 (Disagree)	8	4,08	0,66
	1 (Strongly disagree)	5	4,17	0,80
18. An online store is trustworthy if its website contains a privacy statement for cookies and privacy policies.	5 (Strongly agree)	94	4,50	0,37
	4 (Agree)	152	4,33	0,48
	3 (Neither agree or disagree)	45	4,17	0,49
	2 (Disagree)	19	4,00	0,59
	1 (Strongly disagree)	8	4,25	0,70
19. An online store is trustworthy if its website contains positive reviews from other consumers.	5 (Strongly agree)	71	4,50	0,45
	4 (Agree)	158	4,33	0,43
	3 (Neither agree or disagree)	37	4,17	0,36
	2 (Disagree)	43	4,00	0,55
	1 (Strongly disagree)	9	4,00	0,81

In terms of the existence of privacy statement for cookies and privacy policies (question 18), instead, Kruskal-Wallis H test indicated statistically highly significance (H(4) = 30.1, p < .001). Further pairwise comparisons implemented using Mann-Whitney U indicated statistically significant differences between Likert-scale options 2 and 5 (Z = -2.9, p = .003, d = .57), and statistically highly significant differences between Likert-scale options 3 and 5 (Z = -4.5, p < .001, d = .82), and 4 and 5 (Z = -4.5, p < .001, d = .59). Based on the results, the participants who strongly agreed that the existence of privacy statement for cookies and privacy policies indicates trust within online store, also evaluated the influence of usability related factors on trust higher than participants who either agreed, disagreed or strongly disagreed with question 18.

As for implementing Kruskal-Wallis H test between the sum variable and the influence of positive website reviews (question 19), the test result was statistically highly significant (H(4) = 28.5, p < .001). Further pairwise comparisons implemented with Mann-Whitney U indicated statistically highly significant differences between Likert-scale options 2 and 4 (Z = -4.1, p < .001, d = .59), 2 and 5 (Z = -4.3, p < .001, d = .87), and 3 and 5 (Z = -3.1, p = .002, d = .61). Based on the results, the participants who (strongly) agreed that positive reviews included in the website indicates trust within online store, also evaluated the influence of usability related factors on trust higher than participants who disagreed with question 19. Similarly, the participants who strongly agreed with the influence of positive website reviews, evaluated the influence of usability related factors on trust higher than participants who neither agreed or disagreed with question 19.

Finally, the sum variable was tested against the questions in relation to social presence. Accordingly, the frequencies, medians and standard deviations of the tested questions 21, 23 and 24 in relation to the sum variable are displayed in Table 14.

TABLE 14 The relation of social presence to usability factors of trust

Related question	Likert-scale option	n	median	std. dev.
21. An online store is more trustworthy when its website presents photographs of real persons instead of illustrated pictures.	5 (Strongly agree)	26	4,67	0,35
	4 (Agree)	93	4,33	0,48
	3 (Neither agree or disagree)	123	4,33	0,43
	2 (Disagree)	49	4,17	0,56
	1 (Strongly disagree)	27	4,17	0,61
23. I experience an online store to be trustworthy when it welcomes me to its website.	5 (Strongly agree)	4	4,92	0,24
	4 (Agree)	29	4,50	0,36
	3 (Neither agree or disagree)	157	4,33	0,44
	2 (Disagree)	75	4,17	0,48
	1 (Strongly disagree)	53	4,00	0,60
24. I experience an online store to be trustworthy when it offers real-time services (e.g. Chat-service).	5 (Strongly agree)	54	4,50	0,46
	4 (Agree)	135	4,33	0,43
	3 (Neither agree or disagree)	89	4,33	0,47
	2 (Disagree)	32	4,17	0,59
	1 (Strongly disagree)	8	3,83	0,61

In terms of the influence of the use of photographs instead of illustrated pictures (question 21), Kruskal-Wallis H indicated statistically significant differences with the test result of H(4) = 17.5, p = .002. Further pairwise comparisons implemented with Mann-Whitney U indicated statistically significant differences between Likert-scale options 1 and 5 (Z = -3.4, p = .001, d = 1.00), 2 and 5 (Z = -3.3, p = .001, d = .82), and 3 and 5 (Z = -3.5, p < .001, d = .60). Based on this, the participants who strongly agreed that the use of photographs instead of illustrated pictures indicates trust within online store, also evaluated the influ-

ence of usability related factors on trust higher than participants who either (strongly) disagreed, or neither agreed or disagreed with question 21.

As for implementing Kruskal-Wallis H test between the sum variable and the influence of a welcome message (question 23), the test result was statistically highly significant (H(4) = 21.5, p < .001). Further pairwise comparisons implemented with Mann-Whitney U indicated statistically significant differences between Likert-scale options 1 and 3 (Z = -2.9, p = .004, d = .40), and 1 and 4 (Z = .40) -3.3, p = .001, d = .77). Based on the results, the participants who either agreed or neither agreed/disagreed that welcoming the user to the website indicates trust within online store, evaluated the influence of usability related factors on trust higher than participants who strongly disagreed with question 23. Finally testing the sum variable against the influence of real-time services (question 24), Kruskal-Wallis H indicated statistically significant differences with the test result of H(4) = 19.3, p = .001. Further, pairwise comparisons implemented with Mann-Whitney U indicated statistically significant differences between Likertscale options 2 and 5 (Z = -3.1, p = .002, d = .71), 3 and 5 (Z = -3.2, p = .001, d= .56). Based on this, the participants who strongly agreed that having real-time services included in the website indicates trust within online store, also evaluated the influence of usability related factors on trust higher than participants who either disagreed, or neither agreed or disagreed with question 24.

To compile the results attained, it appears that factors considered influential to perceived website usability were evaluated as influential to trust as well. Especially in terms of information quality the participants appeared to consider an online store as reliable, when it included information that is accurate, punctual, and valid. The participants also estimated an online store as reliable when it included no errors with the language and technical functions. Furthermore, based on the answers received for both open-ended questions, the participants appeared to estimate an online store with great UX more in terms of aesthetic appeal than aesthetic formality. This was also the case within navigational and search functions. Contrary to these, a reliable online store was described more with the characteristics related to aesthetic formality than aesthetic appeal.

6.3 Reflection of Results

To recap the aim for the thesis' empirical part, the main purpose was to find out in which ways do user's meaning-making of online store's usability influence the customer experience in terms of trust. Further, this research question was divided into four specified research questions concerning the main areas of research. Accordingly, this sub-chapter aims to answer these questions by discussing the main results gained from the survey. Additionally, these results are also reflected against previous studies implemented (and discussed also within this thesis).

What is the level of validity when evaluating perceived website usability in terms of aesthetic formality and/or appeal?

As discussed earlier, the quality assessments made about the product (the service) use can be considered both in terms of a product's (a service's) practical and aesthetic dimensions (Rousi et al., 2011). Also, these two dimensions appear to be related to each other, since the evaluations made from one may affect the evaluations made from the other (e.g. Sonderegger & Sauer, 2010; Tuch et al., 2012). The current study approached this relation by examining the validity of those aesthetic website features that may affect those perceptions made from an online store's usability. Accordingly, these features were considered in terms of aesthetic formality and aesthetic appeal. Of these, aesthetic formality was used to measure the efficiency of those website conditions that can be considered to facilitate and support purchase tasks (Wang et al., 2011; Xenakis & Arnellos, 2013). These conditions used within the survey included the quality of information, website language, site navigation, and technical functions. Instead, aesthetic appeal was used to measure the efficiency of design features and elements included in the website, such as colors, graphics and images used (Wang et al., 2011). The current study approached these design features by enquiring participants about the influence of (pleasant) visual appearance and high-quality product descriptions/images.

Based on the gained results, the participants appeared to value both features of aesthetic formality and appeal in relation to website quality. This was also perceived from the participants' answers given to open-ended question about an online store with great UX. That is, in their answers the majority of participants did designate those characteristics related to both aesthetic formality and appeal. Accordingly, both aesthetic formality and aesthetic appeal can be considered as valid when evaluating perceived website usability. Firstly, the results support the mediating role of pleasure in consumer's attitudes against an online store (Porat & Tractinsky, 2012). This is due to the participants' answers in which an online store with great UX was in a large part reflected based on the pleasure of using it. Hence, the results also support the notion of hedonic quality being the contributing factor of positive online experience (e.g. Hassenzahl et al., 2010). Secondly, the results did emphasize the fact that visually appealing website influences the quality of online experience assessment as well (e.g. Skadberg & Kimmel, 2004; Wang et al., 2011).

The results did, however, indicate that the level of validity would be slightly higher in the case of aesthetic appeal than aesthetic formality: within their answers participants did stress mostly those factors related to online store's visual appearance. But then, although the factors related to aesthetic formality were not directly designated to an equal extent, the participants did evaluate those factors related to website's usability rather through the experience of website use (e.g. easy to use and browse) than specific constructs included in it (e.g. clear and explicit search functions). Finally, given the frequencies for each categorical dimension, aesthetic appeal appeared to be valid especially in terms of clarity of the layout and high-quality product descriptions and

pictures, and less valid in terms of colors, graphics and images used. As for aesthetic formality, it appeared to be valid especially in terms of information accuracy and punctuality, possibilities of navigation, accuracy of language and technical functions, and less valid in terms of information validity.

On what terms is an online store estimated to be trustworthy?

Approaching the empirical study in relation to those attributes affecting online store trust this thesis utilized the work by Beldad et al. (2010) based on which the main six website-based antecedents of trust were designated. These antecedents included: (1) Perceived ease of use of the website, (2) Information quality, (3) Graphical characteristics, (4) Social presence cues, (5) Privacy assurances and security features, and (6) Third-party guarantees. Of these antecedents, social presence cues will be discussed within the next specified research question. Instead, reflecting the other five antecedents against the results gained, website's information quality differentiated as the most influential factor to trust. That is, the participants mostly valued an online store that included accurate and punctual information, consistent and appropriate language, and fluent technical functions. These results are confirmed by the literature as consumers' trusting beliefs are considered to form partly against those estimations of website quality being timely and accurate and providing useful information (Everard & Galletta, 2005). As for the results related to graphical characteristics, participants did not appear to define an online store as reliable directly based on colors, graphics and images used within its website. Though, based on participants' answers the quality of website's visual appearance was to some extent related with online store trust. Mainly the participants valued the website to be clean, modern and professionally implemented. In other words, the results emphasized the importance of aesthetic stimuli in consumer's perceptions of website quality (Wang et al., 2011), but also their relevance as trust related attributes (e.g. McKnight et al., 2002). Yet, the effect was more distinct in the case of information quality than graphical features.

The results related to information quality can also be reflected against those attributes that convey perceived ease of use of the website. That is, perceived website quality is within this study acknowledged to be for one consisted based on those evaluations made of website's functional and navigational issues, such as ease of navigation, response time and information quality (Éthier et al., 2006). Further, these evaluations are also acknowledged to affect one's assessment of reliability in terms of both the retailer and its website (Grabner-Kraeuter, 2002; Wu, 2013). Now, based on the results gained, the participants appeared to value these same constructs that facilitate the use of an online store. This was despite the fact that a reliable online store itself was not as much characterized by describing it as 'usable' or 'easy to use'.

Lastly, viewing the results related to both privacy assurances and security features, as well as third-party guarantees, especially the existence of website certificates and privacy statements appeared to have an influence on participants' trusting beliefs to some extent. Yet, these factors were not that empha-

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sized within participants' answers for the open-ended question. Instead, the participants did emphasize the importance of secured payment features in terms of clear payment steps and the varied yet common options for payment. The results do support other studies based on which the existence of different policies and guarantees may be considered important, but those actual trusting belief may be relied more with other characteristics, such as those factors related to website's appeal (Beldad et al., 2010; Pan & Zinkhan, 2006). However, the results cannot be considered to mitigate the security and privacy issues reflected to consumer's concerns that may still exist against associating with an online store (e.g. Ahuja et al., 2003; Grabner-Kraeuter, 2002; Wu, 2013).

Although not included in the list of web-based antecedents by Beldad et al. (2010), the current study also briefly inspected the influence of positive website reviews on trust. Accordingly, over 70 % of participants did agree that an online store of which website includes positive reviews from other consumers is regarded as trustworthy. Yet, based on the open-ended answers store ratings and shared customer reviews were not considered to be the most essential factors for online trust. Accordingly, it is acknowledged that both availability and amount of (positive) customer reviews may have an influence on the formulated image against online store's trustworthiness. Within this case, however, more thorough examination would be required in order to evaluate the extent to which participants rely more on information given by other consumers than an online store itself (Hsu & Tsou, 2011).

How does social presence affect trust?

Viewing the influence of social presence on trust based on literature, it is stated that conveying the sense of personal, sociable and sensitive contact through its website an online store may affect both consumer's expectations and trusting beliefs towards it (Gefen & Straub, 2004; Lu et al., 2016). Thus, perceived social presence may also enhance consumer's feelings of comfort and emotional satisfaction (Zhang et al., 2014) and enjoyment experienced when using the website (Koufaris, 2002). As for conveying consumer perceptions made of evendors' social presence, an online store may for example include an welcoming message to its website or personalize consumer's subsequent visits and e-mail communications (Gefen & Straub, 2004). Perceived social presence may be also conveyed through communication used with online chat tools (e.g. Lu et al., 2016) and through socially rich descriptions and pictures (Hassanein & Head, 2007).

The current study approached social presence by asking participants about the influence of four specific factors. These factors were a welcoming message included in the website, the absence of company introduction and contact information, the availability of real-time customer services, and the use of photographs instead of illustrated pictures. Based on the gained results, social presence was considered influential to trust mainly in terms of organizational information and customer service quality. That is, some participants considered that a reliable online store does include at least the basic information, such as

physical address and phone number within its website. On the other hand, it appears that the more organizational information available (either within or outside an online store's own website), the more reliable an online store represents itself. Similarly to organizational information, the availability of real-time services was also considered somewhat influential to trust. Participants especially requested that customer service would be easy to contact, and the service provided would be adept, customer-friendly and quick to response and solve problems. As for the remainder of results, either the influence of a welcoming message or the use of real photographs instead of illustrated photographs were not considered as influential to trust as other factors.

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The results within this study indicate that social presence cues included in the website may not be the main interest of consumers in terms of trust. On the one hand, this does not apply to the results gained from other studies according to which the higher the level of perceived social presence would indicate an online store to be more useful, enjoyable and trustworthy (Cyr et al., 2007; Hassanein & Head, 2007). But then, it appears that both the amount of company information and customer service quality would have some influence on trust. Therefore, the results do apply to results based on which the more social cues and information provided, the more transparent and trustworthy an online store is perceived to be (Lu et al., 2016).

What is the relationship through usability related factors to trust?

As established within this thesis, along with perceived usability being the contributing factor for website quality (Hassenzahl et al., 2010; Rose et al., 2012), it may also affect an online store's image creation (Chang & Tseng, 2013) in terms of trust (Everard & Galletta, 2005). Thus, the implemented study took a particular interest in the connection between perceived website usability and online trust. Given the attained results, this connection was validated, and it appears that those influential factors of perceived website usability were mainly evaluated as influential to trust as well. In other words, the participants mostly agreed on the importance of those given perceived usability factors to trust (with the median of all answers being 4,33).

Yet, as participants' answers for the open-ended questions confirm, a reliable online store was above all described with characteristics related to information quality, such as the accuracy and punctuality of information (n=145), and the accuracy of language and technical functions (n=128). Relating to this, within their answers participants mainly requested an online store in which the information presented is accurate, complete and up-to-dated. Also, the participants estimated an online store as more reliable when it included no errors within the website language or technical functions. These results, for one, confirm that perceptions of errors, poor formatting style or incompleteness of a website may mitigate the experience of trust towards the website (Everard & Galletta, 2005) or those intentions to trust the e-vendor (McKnight et al., 2002). Further, the results imply that these same characteristics related to aesthetic formality are regarded as more influential in terms of trust than in terms of

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pleasant UX within online stores. That is, the participants appeared to estimate an online store with great UX more in terms of aesthetic appeal than aesthetic formality. Contrary to these, a reliable online store was described more with the characteristics related to aesthetic formality than aesthetic appeal.

6.4 Reliability and Validity

This sub-chapter evaluates the reliability and validity of an implemented study. The evaluation is started with reliability, which refers to the estimation of how reproducible the current study is, given the similar measurements within the same phenomena (Metsämuuronen 2011, 74). Considering the phenomena measured within this study, the survey execution can be considered as reliable and easy to execute again. This is due to the appropriateness of research method used, since the aim was to collect as much quantitative data as possible. Accordingly, the collection of survey data can be regarded as successful based on the amount of answers. Instead, the sum variables initially constructed for the analysis cannot be considered entirely reliable due to low reliability rates. This is also related to the estimated validity of the survey results.

Continuing the evaluation towards the validity of implemented study, it is executed considering both external and internal validity. Of these, external validity measures the extent to which a study (and its results) are generalized. As for internal validity, it measures the credibility of the study in terms of used concepts and theory, formulated measures, and any possible mitigating factors of reliability in the measurement situation (Metsämuuronen 2011, 65.) Estimating external validity first in terms of used sampling, the survey cannot be considered entirely valid despite its large sampling size. Although the target group was not restricted into certain type of online store users, based on participants' demographics (especially age, life situation and living distance) the sampling cannot be regarded as representative against all online store users. Instead, the results can be seen to reflect the population in terms of certain age groups (18–24 and 25–34) and life situation (students and working).

As for estimating internal validity, although the design and equipment used did serve the purpose of this study, the questionnaire cannot be considered as totally valid. That is, although the questions were selected based on the previous studies viewed, the questionnaire form was not empirically validated before this study. This may have also affected the chosen sum variables which partly indicated the lack of validity within this study. Finally, evaluating the mitigating factors appeared in the measurements, implementing a questionnaire study always contains the possibility of having flaws in the interpretation of questions. Especially compared to qualitative research methods, such as interviews, it is difficult to say whether the participants completely understood the questions as they were meant, but also whether they answered honestly. On the other hand, the answers received for the open-ended questions indicated that the nonresponse was minor.

7 CONCLUSION

This thesis, restricted to the consumer's point of view, aimed to find out whether perceived website usability influences trust in online stores, and in what ways. Relating to this, the following study had two main research areas of which the first concerned the subjectivity of CX (in terms of varying consumption situations and individual differences). The second research area, in turn, concerned the relation between user's meaning-making of perceived website usability and trust experienced towards online store. Accordingly, there were two research questions designated for the study:

- 1. What is the relationship between user experience and customer experience?
- 2. How does user's perceptions of online store's usability influence on the customer experience in terms of trust?

The inspection within the area of first research question, containing the chapters 2-4, was implemented as literature review. Based on the literature, the concept of CX is considered quite holistic in nature, as it may extent even further than those encounters faced here and now within the same retail domain. Though, due to the person-specific features brought into the consumption by each consumer, CX may be inspected especially in terms of those consumer's subjective responses formed against an e-vendor (Lemke et al., 2011; Verhoef et al., 2009). This for one relates CX to UX, as it also emerges within varied dynamic, context-dependent and subjective settings (Law et al., 2009). Now, as UX is often related to product use, within the case of online stores it mainly emerges within the interaction between the consumer and the online store's website. On the consumer's behalf, this interaction includes two experiential states of cognitive and emotional (or affective) processing (Rose et al., 2012; Rousi et al., 2011). On the website's behalf, instead, the interaction includes both the website's practical and aesthetic features in terms of consumer's assessments made of its pragmatic and hedonic quality (Childers et al., 2001; Hassenzahl et al., 2010; Rousi et al., 2011; Skadberg & Kimmel, 2004). As for considering the outcome of this interaction, perceived website quality reflected against one's expectations (i.e. values and goals) set for the website (Chang & Tseng, 2013; Wu, 2013) may for one's part dictate consumer's experience about an online store (Puccinelli et al., 2009). Accordingly, to define the exact relation between UX and CX within online stores, this thesis arrived at a conclusion that OUE influences OCE mainly through perceived customer value. That is, the more value-in-use given to website (Heinonen & Strandvik, 2009) the higher intensity of positive emotions and satisfaction addressed towards an online store it may be resulted (Éthier et al., 2006; Morgan-Thomas & Veloutsou, 2013).

This influential relation of UX to CX was considered as highly important also in terms of online store trust, due to which it was approached within the thesis' empirical part as well. Accordingly, an online survey was conducted in order to find out whether the factors of perceived usability have any relation to those factors of online trust. The survey data (N=318) was collected from both Jyväskylä University students (and personnel) and other potential online store users mainly via email lists and Facebook. As the results confirmed, perceived website usability may be regarded to have an influence on the experience of online store trust. Further, this influence was indicated as especially valid in terms of aesthetic formality. That is, the participants mainly described a reliable online store by designating the characteristics related to information quality. For one, the participants requested an online store of which website included information that is both accurate, punctual and complete. Also, the participants evaluated an online store to be more reliable in the case of consistent and appropriate website language, and fluency of technical functions. As for the results related to aesthetic appeal, the participants did consider website's overall visual appearance to have some influence on online store trust, although any specific graphical characteristics, such as colors and images, were not that emphasized. The participants did, however, consider the trustworthiness of an online store to be reflected partly based on its website's visual appearance. Relating to this, a website with clean, modern and professional layout was evaluated to be more reliable than its counterpart. In conclusion, it appears that within the framework of current study a user's perceptions of online store's usability influence the experience of trust mostly through one's evaluation of its website's information quality.

Evaluating the meaning of gained results, they cannot be considered as entirely valid due to unrepresentative sampling size. That is, the sample in this survey consisted mainly of participants between the age groups of 18 and 34. Also, in terms of other demographic details, such as life situation, the results cannot be generalized to concern the entire population of online store users. Accordingly, to gain more representative sample may require beforehand formulated user groups with more distinctive characteristics related to online shopping behavior. As for the design and equipment used, they can be considered to serve the purpose of this study well: the survey reached the participants well, and the non-response rate in relation to open-ended questions was minor. On the other hand, the questionnaire form was not validated from before,

which caused some difficulties especially with the constructed sum variables. Additionally, due to the method of quantitative study it is impossible to evaluate whether the participants either understood the questions enquired as meant or answered honestly. The use of quantitative method also had its influence on the analysis of open-ended questions, as some of the answers received may be interpreted quite multidimensionally. Due to the limitations designated for this study, the retrospection of results should be also critically viewed. Yet, they can be considered to give at least some insight to customers' meaning-making of online stores in relation to its website's usability. Most of all, the results can be considered to illustrate such website attributes of usability and aesthetics which are reflected against the evaluation of an online store's trustworthiness. In this respect, the results may be utilized for the customer experience creation within online stores.

Considering the proposals for the advanced study, it may be justified to utilize more qualitative methods alongside quantitative ones in order to gain more accurate results in terms of how different factors of online trust are experienced by consumers. For example, it would be more illustrative for consumers to have representations of both poorly and well-designed websites in terms of usability, based on which the evaluations of trust related factors would be made. As for the phenomena inspected, the results gained did imply the possible relation between usability related factors and trust. Hence, this relation is also justified to have a more detailed investigation in future. In particular, it would be justified to view the influence of perceived usability factors in relation to other factors considered essential to trust as well. For example, to what extent a consumer's standpoint for usability related factors alters in the case of familiar (or unfamiliar) online store.

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APPENDIX 1 THE SURVEY QUESTIONNAIRE

KYSELY VERKKOKAUPPOJEN KÄYTTÖKOKEMUKSISTA JA LUOTETTAVUUDESTA

Tervetuloa!

Tämä kysely tarkastelee verkkokaupoissa asiointiin liittyviä käyttökokemuksia sekä niiden yhteyttä verkkokaupan luotettavuuteen. Kysely toteutetaan osana Jyväskylän yliopiston kognitiotieteen pro gradu -tutkielmaa. *

Taustatietojen lisäksi kyselyssä esitetään 30 kysymystä, jotka on jaettu kahteen osioon: Asiointikokemus verkkokaupoissa ja Luottamus. Kysely on suomeksi ja siihen vastaamiseen kuluu muutama minuutti. Vastaukset kerätään Anonyymisti ja niistä koostettua yhteenvetoa käytetään ainoastaan tätä ja mahdollista jatkotutkimusta varten. Kummassakin tapauksessa kyselyyn annettuja tietoja käsitellään luottamuksellisesti.

Kyselyn lopuksi voit halutessasi osallistua Finnkinon elokuvalippujen arvontaan (5 kpl). Tähän liittyen sivu ohjautuu automaattisesti yhteystietojen täyttämiseen kyselyn päätyttyä.

Mahdolliset kyselyä koskevat kysymykset voi lähettää sähköpostiini (maria.e.malvela@student.jyu.fi).

Maria Malvela kauppatieteiden kandidaatti Informaatioteknologian tiedekunta Jyväskylän yliopisto

*) Kyselyä ovat tukemassa Rich Multisensory User Experience -projekti (RmUE) ja Business Finland.

Olen ymmärtänyt yllä esitetyt ehdot ja hyväksyn vastauksieni käytön tässä tutkimuksessa.

Hyväksyn

Taustatiedot

Sukupuoli

- o Mies
- Nainen
- o Muu
- o En halua vastata

Ikä (vuosina) [Avoin kenttä]

Elämäntilanne

- o Työssäkäyvä
- o Työtön
- Kotivanhempi
- o Opiskelija
- o Eläkeläinen
- o Muu, mikä? [Avoin kenttä]

Korkein suoritettu tutkinto / tällä hetkellä suoritettava tutkintoaste

- o Peruskoulu
- o Lukio/ammatillinen koulutus
- Alempi korkeakouluaste
- o Ylempi korkeakouluaste
- Tutkijakoulutus
- o Muu, mikä? [Avoin kenttä]

Asuinetäisyys kaupungin keskustasta

○ Alle 1 km
 ○ 1-4 km
 ○ 5-9 km
 ○ 21-30 km
 ○ 31-40 km
 ○ > 40 km

o 10-20 km

Verkkokauppojen käyttökokemus

Verkkokaupoissa asioinnilla tarkoitetaan tässä kulutustuotteisiin ja -palveluihin pohjautuvaa verkkokaupoissa vierailua, joka ostamisen lisäksi käsittää myös muut verkkosivustolla suoritettavat toiminnot, kuten tuotetietojen etsimisen tai hintojen vertailun. Esimerkkejä tällaisista verkkoasioinnin kattavista kulutustuotteista ja -palveluista ovat muun muassa vaatetus, elektroniikka, pelit ja elokuvat, matka- ja elämysliput, kosmetiikka- ja luontaistuotteet sekä erilaiset ravintolisät. Verkkoasiointi ei sisällä tässä tutkimuksessa ruokakaupasta ostettavia päivittäiselintarvikkeita.

1. Asi	oin verkkokaupoissa		
0	1-2 kertaa viikossa tai useammin		
0	3-4 kertaa kuukaudessa		
0	1-2 kertaa kuukaudessa		
0	7-11 kertaa vuodessa		
0	3-6 kertaa vuodessa		
0	1-2 kertaa vuodessa tai harvemmin		
0	En asioi verkkokaupoissa		
2. Ensisijainen tarkoitukseni asioida verkkokaupassa on (Valitse enintään 3)			
	Hintavertailu		Ajanviete
	Tuotevertailu		Ostaminen
	Tuoteselailu		Muu, mikä? [Avoin kenttä]
	Tiedonhaku		
3. Hyödynnän verkkokauppojen tarjontaa perinteisten kivijalkakauppojen rinnalla.			
0	Täysin samaa mieltä		
0	Osittain samaa mieltä		
0	Ei samaa eikä eri mieltä		
0	Osittain eri mieltä		
0	Täysin eri mieltä		
4. Asioin verkkokaupoissa enemmän kuin perinteisissä kivijalkakaupoissa.			
0	Täysin samaa mieltä		
0	Osittain samaa mieltä		
0	Ei samaa eikä eri mieltä		
0	Osittain eri mieltä		
0	Täysin eri mieltä		
5. Asi	oin mielelläni vain perinteisissä kiv	ijalka	kaupoissa.
0	Täysin samaa mieltä	•	
0	Osittain samaa mieltä		
0	Ei samaa eikä eri mieltä		
0	Osittain eri mieltä		

6. Millainen on mielestäsi käyttökokemukseltaan hyvä verkkokauppa?

[Avoin kenttä]

o Täysin eri mieltä

Seuraavat kysymykset kartoittavat lähemmin verkkokaupan käyttökokemukseen liittyviä tekijöitä.

7. Koen verkkokaupassa asioinnin miellyttäväksi, kun sivustolla esitetty tieto on täsmällistä, ajantasaista ja helposti löydettävissä.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

8. Koen virheellisten tuotetietojen heikentävän verkkokaupan laatua.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

9. Helppo sivustolla liikkuminen ja monipuoliset hakutoiminnot ovat minulle tärkeitä verkkokaupassa.

- Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

10. Verkkosivustolla esiintyvät virheet kielessä ja teknisissä toiminnoissa vaikeuttavat verkkokaupassa asiointia.

- Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

11. Tuoteselosteiden ja -kuvien laatu on minulle tärkeää verkkokaupassa.

- o Täysin samaa mieltä
- Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

12. Kattava tuoteseloste voi korvata puutteelliset tuotekuvat.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

13. Verkkosivuston visuaalinen ulkoasu (esim. värit ja kuvat) on minulle tärkeää verkkokaupassa.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

14. Verkkosivuston visuaalisen ulkoasun miellyttävyys ei vaikuta verkkokaupan käyttöön.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

Luottamus

15. Millainen on mielestäsi luotettava verkkokauppa? [Avoin kenttä]

16. Koen verkkokaupan luotettavuuden tärkeänä.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

- 17. Verkkokauppa on luotettava, jos sen sivuilta löytyvät turvallista asiointia ja maksua todentavat varmenteet (esim. Luotettava verkkokauppa sertifikaatti).
 - o Täysin samaa mieltä
 - o Osittain samaa mieltä
 - o Ei samaa eikä eri mieltä
 - o Osittain eri mieltä
 - o Täysin eri mieltä
- 18. Verkkokauppa on luotettava, jos sen sivuilta löytyy eväste- ja yksityisyystietoja koskeva tietosuojaseloste.
 - o Täysin samaa mieltä
 - o Osittain samaa mieltä
 - o Ei samaa eikä eri mieltä
 - o Osittain eri mieltä
 - Täysin eri mieltä
- 19. Verkkokauppa on luotettava, jos sen sivuilta löytyy muiden käyttäjien tekemiä positiivisia arvosteluja sen tuotteista ja palveluista.
 - o Täysin samaa mieltä
 - o Osittain samaa mieltä
 - o Ei samaa eikä eri mieltä
 - o Osittain eri mieltä
 - Täysin eri mieltä
- 20. Kotimaisella verkkokauppasivustolla asiointi on turvallisempaa kuin ulkomaisella verkkokauppasivustolla.
 - Täysin samaa mieltä
 - o Osittain samaa mieltä
 - o Ei samaa eikä eri mieltä
 - Osittain eri mieltä
 - o Täysin eri mieltä
- 21. Verkkokauppa on luotettavampi, kun sen sivustolla on kuvituskuvien sijaan käytetty valokuvia oikeista ihmisistä.
 - Täysin samaa mieltä
 - o Osittain samaa mieltä
 - o Ei samaa eikä eri mieltä
 - o Osittain eri mieltä
 - o Täysin eri mieltä

22. Yrityksen esittelyn ja yhteystietojen puuttuminen ei vaikuta verkkokaupan luotettavuuteen.

- Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

23. Koen verkkokaupan luotettavammaksi, kun minut toivotetaan tervetulleeksi sivustolle.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

24. Koen verkkokaupan luotettavaksi saadessani siellä reaaliaikaista palvelua (esim. Chat-palvelun kautta).

- o Täysin samaa mieltä
- Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

Seuraavat kysymykset kartoittavat lähemmin verkkokaupan käyttökokemukseen liittyvien tekijöiden vaikutusta luotettavuuteen.

25. Luotan verkkokauppaan, josta löytyvä tieto on täsmällistä, ajantasaista ja helposti löydettävissä.

- o Täysin samaa mieltä
- Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

26. Virheelliset tuotetiedot vaikuttavat negatiivisesti verkkokaupan luotettavuuteen.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- Osittain eri mieltä
- o Täysin eri mieltä

27. Luotettavassa verkkokaupassa sivustolla liikkuminen on helppoa ja hakutoiminnot ovat monipuoliset.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

28. Verkkosivustolla esiintyvät virheet kielessä ja teknisissä toiminnoissa heikentävät verkkokaupan luotettavuutta.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

29. Tuoteselosteiden ja -kuvien hyvä laatu viestii verkkokaupan luotettavuudesta.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä

30. Visuaaliselta ulkoasultaan miellyttävämpi verkkokauppa on myös luotettavampi.

- o Täysin samaa mieltä
- o Osittain samaa mieltä
- o Ei samaa eikä eri mieltä
- o Osittain eri mieltä
- o Täysin eri mieltä