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**Title:** Customer Experience Formation in Online Shopping : Investigating the Causes of Positive and Negative Emotions During a Visit to an Online Store

**Year:** 2021

**Version:** Accepted version (Final draft)

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**Please cite the original version:**

Kemppainen, T., Makkonen, M., & Frank, L. (2021). Customer Experience Formation in Online Shopping : Investigating the Causes of Positive and Negative Emotions During a Visit to an Online Store. In C. Metallo, M. Ferrara, A. Lazazzara, & S. Za (Eds.), *Digital Transformation and Human Behavior : Innovation for People and Organisations* (pp. 173-190). Springer. Lecture Notes in Information Systems and Organisation, 37. [https://doi.org/10.1007/978-3-030-47539-0\\_13](https://doi.org/10.1007/978-3-030-47539-0_13)

# Customer Experience Formation in Online Shopping: Investigating the Causes of Positive and Negative Emotions during a Visit to an Online Store

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**Abstract.** This study explores customer experience formation in an online shopping context by investigating the causes of customers' positive and negative emotions during their visit to an online store. Survey data collected from 1,786 Finnish online customers was used to identify individuals who experienced strong positive (N=138) or negative emotions (N=215) during their visit. The causes of negative and positive emotions were studied by analyzing customers' open-ended, written explanations attributed to their emotions. Attribution theory is utilized to explain how individuals make sense of their emotions. The findings show that customers offer various explanations for the emotions evoked during a visit to an online store. Three main themes were identified with respect to the causes of such emotions and related to: 1) the online store, 2) the socio-material environment, and, 3) the customer her/himself. Customers generally blame the online store for negative emotions, whereas positive emotions are mostly associated with oneself and one's success as a consumer. Both negative and positive emotions are to some extent explained by the sociomaterial environment. The findings demonstrate the complexity of customer experience formation. Further investigation of the topic is therefore warranted.

**Keywords:** Customer Experience, E-Commerce, Online Consumption, Emotions, Attribution Theory

## 1 Introduction

The importance of customer experience as a component of a company's competitive advantage is widely acknowledged among academics and practitioners, as consumers have unprecedented power and a variety of means whereby such power can be exerted. The importance of customer experience is therefore emphasized when providing online services for consumers. While corporate employees are typically compelled to use specific online services regardless of their individual preferences, it is comparatively easier for consumers to change their service provider (such as an online store) if the service

fails to meet customer expectations. In an online environment, an alternative service is merely one click away.

A vast number of studies have analyzed the influence of customer experience on customer behavior in online [1,2,3,4] and offline [5,6,7,8] contexts. As such, previous research has demonstrated the consequences of positive and negative customer experiences and how such experiences affect a company's performance. The literature notes that a positive customer experience which meets or exceeds customer's demands and expectations leads to greater customer satisfaction, long-lasting relationships and loyalty, and in doing so, creates a competitive advantage for a company and boosts its revenue [9,10]. In comparison, negative customer experiences weaken the company's competitive position. Negative customer experiences (which fail to meet customer expectations) lead to loss of sales and entail extra costs; for example, through customer service demands. Previous research posits that negative experiences negatively influence customer loyalty [11], word-of-mouth and complaining behaviors [12], repurchase intentions [13], and customer attitudes toward the company [14]. Negative customer experiences are also frequently communicated to other customers [15].

As an understanding of customer experience and how it is constructed by customers is important, the purpose of this paper is to advance the understanding of how positive and negative customer experiences are created in an online shopping context during a visit to an online store. Since previous studies in the online consumption context have for the most part focused on human-to-computer interactions [16] and examined customer experience through technical and company standpoints, this study makes use of a contrasting perspective and investigates customer experience formation with an open-ended approach as depicted by customers themselves and in their own words. Investigating customer experience formation through the lens of a customer would provide important knowledge for service providers and academics, as it would provide an in-depth understanding of how customers make sense of services and what they find truly meaningful for themselves in a given context. This study contributes to the existing literature consisting of a small number of studies [1,17] that have focused on the customer perspective in an online shopping context.

The study was conducted using survey data collected from 1,786 Finnish online store customers. As researchers have suggested that customers engage in affective and cognitive processing during their consumption activities and customer experience construction [2,18], an initial step in this study involved the identification of customers who felt strong negative or positive emotions during their visit to an online store. An analysis of how customers explained their emotions cognitively was carried out by investigating the open-ended, written descriptions attributed to their emotions. In the qualitative analysis, we utilize Attribution theory [19,20], which is concerned with how people explain the causes of events and behaviors they encounter in daily life. This provided a useful lens with which to frame how individuals make sense of online services and their emotions.

This study includes five sections. Section 2 discusses the theoretical background of the study including online customer experience and Attribution theory. Section 3 presents the methodological choices for the empirical study, and section 4 presents the

empirical findings. Section 5 discusses study contributions and managerial implications.

## **2 Theoretical background**

### **2.1 Customer experience**

Various marketing and information systems studies have contributed to our understanding of customer experience by investigating an individual's experiences in a variety of contexts. Individual experiences of online environments have been researched by making use of several concepts in marketing, including the online customer experience, online customer service experience, and the online shopping experience [1,3,21,22]. Information systems research typically employs the user experience concept, highlighting the usability of different services and products [23]. While these marketing and information systems studies are very much intertwined and customer experience and user experience concepts refer to the same essential idea (how individuals perceive different services or products provided by a company), these concepts usually have different scopes. The user experience is generally understood as a customer or user's use experience with a specific product, such as a website, app, or software. Customer experience, on the other hand, is a more flexible concept with a wider scope; it can encompass, for instance, end-to-end customer interactions with a company or its offerings and can include many channels and touchpoints. This study makes use of the customer experience concept, as our aim is to understand customer experience formation with an open-ended approach, including customers' experience of the online store interface, and, in addition, the other important factors contributing to customer experience beyond the store interface.

Customer experience is usually characterized and studied as either a process or an outcome. As customer experience is widely recognized as consisting of a customer's internal and subjective response (outcome) to any interaction with a company, many studies have either measured the quality of customer experience (outcome) or the kind of interaction (process) between online service providers and customers that lead to a certain experience [24,25,26,27,28]. In the online context, the focus of customer experience studies has been on human-to-computer interactions [16] and the study of what type of operating environment an enterprise should create for individuals so as to make their experience as pleasant as possible. A vast amount of research has examined the features of a high-quality e-commerce platform and how different service attributes affect the online customer experience within a business-to-consumer context [2,29,30]. An extensive amount of research has been conducted over the years which aimed to find the best ways to design user-friendly online systems and interfaces [31,32,33] to guide the development and execution of online services or systems [34,35]. The literature outlines numerous variables which a company can make use of to influence the customer experience in online environments, such as ease of use, website aesthetics, customization, interactivity, engagement, and enjoyment [36].

However, while customer experience studies have focused on measuring the service elements' effect on experience, the other contributors to customer experience outside the company's interface have attracted less attention. Researchers [2] have argued that the customer experience involves much more than customers' reactions to service stimuli and that the lack of understanding regarding the other contributors to customer experience is a shortcoming in online customer experience studies; this issue has been the subject of limited investigations [17,22]. A greater focus on the consumer perspective and the mechanisms through which customers process and interpret company offerings has been called for [37,38]. For example, from the customer's point of view, visiting an online store is more complicated than merely the interaction between the service provider and the customer [39]. It involves elements that are not visible to the company, such as a background, purpose, and goal of the online store visit. The visit also includes a device outside the online store, as well as the physical conditions in which the device is used. Customers use and interpret online environments differently and construct their experiences in unique ways. Customer experience is always internal, subjective, and event- and context-specific [40]. Hence, the analysis of customer experience should go beyond the immediate service delivery system and consider how customers create value in their own context [41].

To advance the understanding of customer experience from a customer's perspective, this study examines how customers depict the causes of their positive and negative emotions during an online store visit. We suggest that when customers construct their customer experience, emotions and cognitive explanations given to emotions during the service encounter define the nature of the customer experience. In this study, the customer experience is understood as an outcome of a customer's visit to an online store, including all the meanings created by the individual during the visit. For instance, negative emotions and thoughts that occur during a store visit are likely to direct the customer experience towards a negative perception, while positive emotions and thoughts are likely to do the opposite. It is therefore of importance to understand what kind of affective and cognitive processing [2,18] customers engage in during the construction of their customer experience. In this study, we provide insights on how customers make sense of their online store visit by making use of Attribution theory [19,20] as our theoretical lens.

## **2.2 Attribution theory**

Individuals are motivated to assign causes to events, actions, and behaviors; people prefer the idea that things happen for a reason rather than being caused randomly. Attribution theory provides explanations on how events and behaviors observed during daily life are explained by individuals. Heider (1958) [19] was the first to propose a psychological theory of attribution, and his ideas were extended by Weiner (1974, 1985) [20,42] and colleagues [43], who developed a theoretical framework that has become a major research paradigm of social psychology. Attribution is a cognitive process including the internal (thinking) or external (speaking) activities by which people make judgments; attributes seek to explain what caused a particular behavior or event

and who or what is responsible for it [19,20]. Attributions are made in order to understand and to explain one's experience and to plan future actions. Unlike scientific psychology, which attempts to prove the causes of an individual's behavioral predisposition, naive psychology—as attribution theory has been called—emphasizes people's perceptions of causes. In this study, we regard an attribute as an explanation given by an individual for his/her positive or negative emotions that occur during an online store visit.

Heider [19] divides the attributes into two categories: internal and external. An internal attribute is always related to a person and is external to the situation. In an internal or “dispositional” attribution, individuals assign causality to something within their own control, such as effort or personal factors such as abilities, traits, or emotions. In an external attribution, causality is explained by situational or environmental factors, something that is outside an individual's control. The types of attributes individuals choose to assign to the causes of events affect their motivation and future behaviors [20]; therefore, identifying attributes can be useful for companies aiming to better understand their customers' behavior and the reasons for it.

Human attributes are seen to be subject to various distortions. As Jackson (2019) [44] explains, people often develop biases or faulty reasoning. This reasoning is either self-enhancing (strengthening an individual's ego) or self-protective, which means that individuals protect their ego by blaming others for their own mistakes. Attributions are often considered to entail two basic errors: the fundamental attribution error and the self-serving bias [45]. The fundamental attribution error means that individuals tend to over-emphasize dispositional or personality-based explanations for behaviors observed in others. In other words, people tend to emphasize the agent's internal characteristics (i.e., “what kind of person that person is”) rather than external factors (such as the social and environmental forces that influence the person) when explaining someone else's activities. Individuals also tend to perceive themselves in an overly favorable manner. Self-serving bias involves an individual's tendency to explain positive outcomes such as their own success or other people's positive behavior towards themselves by reference to internal attributions and to blame external attributions for negative outcomes such as their own failures.

Research shows that customers' attributions can have important implications for companies. For instance, attributions are a significant determinant of customer satisfaction, including satisfaction with the service encounter and post-purchase behaviors [46]. Iglesias (2009) [46] found that customers who attribute service failure to the company make a less positive evaluation of the overall quality of the service encounter than customers who associate the failure to external causes outside the company. Previous studies have used Attribution theory to study customer experience in the context of tourism. As there are only a few such studies making use of attribution theory in the context of customer experience [44,47], its application in the context of this study provides a fresh perspective with which to gain insights on a variety of aspects of customer experience in online shopping. As attribution theory is concerned with individuals' sensemaking, it allows for investigations of how customers construct their customer experience through their own lenses, without company-led restrictions. By identifying, categoriz-

ing, and defining the distinct elements that contribute positively or negatively to customer experience, this study enables deeper insights into the distinct components that shape customer experience in the online shopping context and beyond that of other online store elements.

### 3 Methodology

As the purpose of this study was to examine how customers explain the causes of their positive and negative emotions during a visit to an online store, empirical data were collected via an online survey conducted in co-operation with 18 Finnish online stores between September and December 2018. This survey method was selected as it allowed the respondents to consider their online store visit in a real-life context, both safely and at a place of their choice. The selected approach was determined to be suitable for our research aim as we were able to collect data that describes authentic customer experiences in existing online stores.

The stores included various types of business-to-consumer (B2C) stores selling cosmetics, clothing, music, electronics, groceries, home decorations, and recreation products and accessories. Customers of the online stores were presented with a link to the survey after they had successfully placed an order. In the survey, respondents were first briefly asked about their demographics (including age and gender) as well as their online shopping habits, such as how often they shop online, what they had just purchased and how many times they had previously shopped at the online store in question. Respondents were then asked about the emotions they had experienced during their online store visit. The intensity of different emotions was measured by using a set of first-order emotion constructs with 28 specified emotions taken from the hierarchical framework by Laros and Steenkamp [48]. Positive emotions included contentment (contented, confident), peacefulness (calm, peaceful), optimism (optimistic, encouraged, hopeful), joy (happy, pleased, joyful), and excitement (excited, thrilled, attracted). Negative emotions included anger (angry, annoyed, irritated), frustration (frustrated, discontented, disappointed), fear (afraid, nervous, worried), sadness (depressed, sad, guilty), and shame (embarrassed, ashamed, humiliated). The respondents rated these emotions on a scale from one to seven. A value of one indicated that they had not experienced that specific emotion, while a value of seven indicated that they had strongly experienced that specific emotion during their online store visit. In the latter part of the survey, the respondents were asked to describe in their own words their experienced emotions and to explain what caused the strongest positive and negative emotions. The respondents were also given an opportunity to freely comment on the survey itself.

In total, 1,803 respondents completed the online survey. However, the survey results of 17 respondents were excluded due to invalid or missing data, resulting in a sample size of 1,786 Finnish adult respondents. From these, we identified respondents who experienced strong positive or negative emotions during their online store visit; an emotion that differed by more than two standard deviations from the average value for that emotion was considered a strong emotion. The number of respondents with at least one

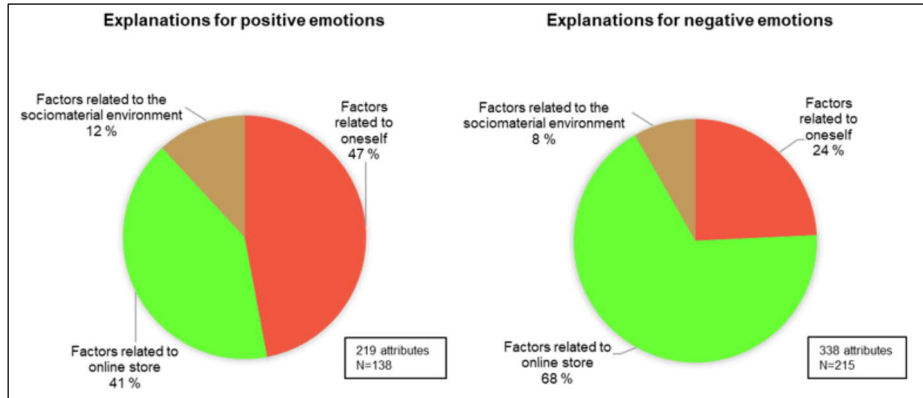
strong negative emotion was 387, while the number of respondents with at least one positive emotion was 321. We then excluded all respondents who did not also comment on their negative or positive emotions related to the online store visit or whose comments were unclear; the final number therefore included 215 respondents with negative emotions and 138 respondents reporting positive emotions. Out of these, 28 respondents included individuals who had experienced both strong negative and positive emotions. The final sample size was therefore 325 individual respondents. A large proportion of respondents were women and under 40 years of age. Most reported making online purchases at least monthly and were also familiar with the online store they were visiting. Respondents' descriptive statistics are reported in detail in Appendix 1.

We analyzed the written data provided by the 325 respondents in the open-ended section of the survey using NVivo software. The software was used to assess the trustworthiness, rigor, and quality of our findings. It was also useful for coding and organizing data into themes, for finding connections and relationships, to calculate attributions, and to share coding and categorization with the research team. Based on Attribution theory, the respondents' explanations for their emotions were first coded as either internally or externally attributed based on their overall content and most frequent cause. Explanations that included two or more distinct points were split into separate units for analysis. The length of the units ranged from 2 to 429 words. Each unit was coded multiple times before tallying the final counts and categorizations of the negative and positive attributes expressed by the respondents. It is important to note that although the main themes explaining the positive and negative emotions were identified based on attribute counts, this study was based on an interpretive approach. Our principal objective was to make sense of and recognize patterns that contribute to customer experience, rather than quantifying the attributes.

## 4 Findings

The findings demonstrate the complexity of customer experience formation in an online shopping context; customers have various explanations for their emotions and these explanations are not merely attributed to the online store in question. Three main themes were identified with regards to the customers' reasons for their emotions during online store visits. These included factors related to 1) the online store (external attributes), 2) the sociomaterial environment (external attributes), and 3) the customer themselves (internal attributes). The findings indicate that customers mostly blame the online store they visited for their negative emotions (68% of all negative attributes), whereas positive emotions are attributed mostly to customers themselves (47% of all positive attributes). Both negative and positive emotions are also quite equally attributed to the sociomaterial environment (12% of all positive attributes and 8% of all negative attributes). In this context, the sociomaterial environment is referred to as the "surrounding world" in which the company and customer operate. Figure 1 demonstrates the main themes of the attributes given to positive and negative emotions.





**Fig. 1.** The main themes of attributes given to positive and negative emotions during an online store visit.

The findings demonstrate that strong negative emotions were more commonly experienced by the participants as compared to strong positive emotions. The main explanations given for the positive and negative emotions are discussed and analyzed in more detail in the following subsections with translated sample quotes.

#### 4.1 Positive emotions during an online store visit

A total of 219 explanations for customers' positive emotions were identified from the data. Positive emotions were explained especially by factors related to the customer themselves (47%, 103 attributes) but also often by the features of the online store (41%, 90 attributes). In addition, the sociomaterial environment (12%, 26 attributes) was identified as an important contributor to positive emotions and customer experience.

**Oneself.** Explanations given to positive emotions highlight the importance of a customer's personal success (i.e., perceiving oneself as a clever and skillful shopper) with respect to the customer experience. Personal success was attributed to one's expertise and efforts as a consumer (51% of self-related attributes). The ability to find and close good deals, succeeding in a "treasure hunt," finding "perfect products for oneself," and saving money with one's findings, caused positive emotions in many respondents.

*"I was excited when I found the right products for myself. It caused the most positive emotions." (Female, 24)*

*"I was pleased because I found the product at lower cost than in many other online stores." (Female, 40)*

Furthermore, feeling surprised and lucky contributed positively to customer experience; finding something new, neat, and unexpected while visiting an online store was experienced as a positive contributor to one's experience. Trying some new things, such

as a new store or a product (13% of self-related attributes) was perceived positively as it was associated with some additional excitement when making a purchase.

*"I'm excited about trying some new products." (Female, 42)*

In addition to sales and other kinds of "finds," facilitating one's everyday life (11% of self-related attributes), including saving time for "something more important" and "getting something out of the agenda" were typical explanations given for positive emotions. The findings demonstrate that the positive consequences of shopping were linked to the future and the outcomes of the purchase and to how will it make one's life easier in the nearby or distant future.

*"I felt joy and the satisfaction of making my life easier when I was able to buy a variety of groceries inexpensively at once, without having to try to drag them by bus with my daily shopping."  
(Female, 48)*

In addition to daily tasks and everyday life necessities, the positive consequences of the purchase for oneself were visualized along with other aspects of life (e.g., how the purchased product will be part of joyful celebrations with one's family).

**The online store.** The positive emotions associated with an online store were explained for the most part by ease of shopping and trouble-free service (32% of store-related attributes). Positive emotions were often aroused by a "smooth" and "as fast as expected" shopping journey.

*"I was pleased with the ease of making a purchase. All the steps went smoothly." (Female, 41)*

The product and service range (23% of store-related attributes) and price level (11% of store-related attributes) as well as the store atmosphere (11% of store-related attributes) were also identified as important contributors to customer experience. Providing enough choices for customers was identified as important as many respondents reported an expectation of having a wide range of products and services from which to choose their favorite. Affordable prices and discounts, as well as special offers and services, were attributed as pleasant surprises which supported the purchase decision. Furthermore, as the following comments demonstrate, one's positive emotions were often explained as being the consequence of many different and meaningful issues.

*"The range of products. They had cheap prices and the range is so variable that you never knew what new and exciting items to expect at the next page." (Female, 26)*

*"Most pleasing was the breadth of the range and sufficient product information, flexible payment and delivery methods, and the extra service provided for the frying pan I purchased. The*

*provision of this additional service seemed very attentive.”*  
(Male, 43)

The store’s atmosphere, including the visual design and communication, appeared as a notable contributor to customer experience, as respondents reported that a store with “good vibes” makes them “feel good,” with the effect of experiencing positive emotions such as joy and happiness while shopping. “Good vibes” were attributed to “cute products and displays” and to a company’s friendly manner when communicating with its customers.

**Sociomaterial environment.** The findings demonstrate that during a visit to an online store, customers explain their positive emotions in terms of issues related to the socio-material environment and by considering the wider context of shopping; i.e., how and where such shopping takes place and what the benefits and consequences of different consumption choices are. With respect to these considerations, the benefits of one’s purchase for the environment (including ecological and ethical benefits) were highlighted (73% of sociomaterial environment-related attributes). Many respondents explained that they experienced positive emotions especially as a consequence of the “goodness and eco-friendliness of their purchase.” Contributing positively to the environment and the general wellbeing of humankind as a consequence of one’s own consumption actions was considered both possible and important (e.g., because of the importance of such things as climate change).

*“I feel good that I can slow down climate change by this choice of purchase.”* (Female, 48)

*“Purchasing from this store is easy, comfortable, and ethical.”*  
(Female, 39)

E-commerce as a service for today’s consumers also caused positive emotions (13% of sociomaterial environment-related attributes) among the participants. Rather than being happy with the particular online store they were visiting, these customers explained their positive emotions in terms of all the benefits (such as ease-of-use) that e-commerce generally provides for today’s consumers.

*“It’s wonderful when you can do the shopping from your couch.”*  
(Female, 43)

*“Enthusiastic about not having to shop in the midst of countless options (at a grocery store). [...] Big stores are the worst. A lot of walking, a lot of choices and decision making.”* (Female, 26)

A few participants also discussed the social aspect of shopping. A positive surprise for one’s close friends and family resulting from a purchase (12% of sociomaterial environment-related attributes) was perceived as a positive contributor to one’s emotions while visiting an online store.

*“I ordered a small gift for my uncle and became very happy about it. I’m thrilled to wait as he gets it and calls me; what his reactions are.” (Female, 43)*

While purchasing items for oneself caused plenty of positive emotions among the participants, envisioning how one’s purchase may offer joy for others seemed to have a positive effect on the customer experience.

#### **4.2 Negative emotions during a visit to an online store**

A total of 338 explanations for customers’ negative emotions were identified from the data. Whereas the participants credited almost half (47%) of their positive emotions to internal attributes and to themselves, negative emotions were explained especially by factors related to the online store (68%, 228 attributes). “Oneself” was identified as the cause of some negative emotions with 82 attributes (24%). “Sociomaterial” attributes were identified as a contributor to negative emotions with 28 attributes (8%).

**The online store.** The online store was identified as the main cause of customers’ negative emotions during a visit. The negative emotions were mostly attributed to unpleasant surprises and disappointments caused by the store. These included surprises such as “the desired product was not available” (14% of store-related attributes), “there were not enough products to choose from” (7% of store-related attributes), “technical errors” (11% of store-related attributes), and “complications in navigation and managing the order” (10% of store-related attributions) which made the purchase journey complicated and time-consuming. Many respondents reported multiple explanations for their negative emotions, as the following quotes demonstrate:

*“Frustration and other negative emotions arose when the website did not work and the selected products did not go to the shopping cart. Also, if the products I searched for were not available and the discounts were low.” (Female, 39)*

*“The site threw me out many times while processing order data and the page was loading really slowly.” (Male, 57)*

*“I was a little worried about the quality of the products and the reliability of the online store. The cost and versatility of the products did not meet my expectations, which was somewhat disappointing.” (Male, 37)*

The way an online store displays its products, including products categories, filter possibilities, and product information, was important for respondents as they reported plenty of negative emotions (15% of store-related attributes) resulting from a badly presented product range. Poor product displays were thought to complicate a purchase, as a significant effort was required to manage the shopping process. Some participants

specified a time-consuming shopping process (5% of store-related attributes) as being the cause of their negative emotions during a visit to an online store.

*“I had to put in a lot of effort to find suitable products for myself. It caused frustration.” (Female, 70)*

Furthermore, pricing (11% of store-related attributes) was identified as an important contributor to the customer experience. Prices that were considered too expensive (together with unclear and misleading pricing) were reported as causes of one’s negative emotions. Furthermore, quantity discounts (5% of store-related attributes) aroused negative emotions. “Chasing” the discount limit was considered as something that one could easily end up doing, yet was nevertheless considered stressful and sometimes an impossible mission.

*“I couldn’t find enough to buy so that I would have reached the 20€ limit (for free delivery). It began to irritate me as I was forced to buy more and did not know whether I will use those products.” (Female, 50)*

Discounts were indicated as a cause of unnecessary consumption, as discount limits were considered to encourage customers to purchase items which they might not need.

**Oneself.** The participants also identified themselves and their own actions as the cause of their negative emotions. These negative emotions were mostly attributed to one’s consumption habits and to the guilt associated with buying (36% of self-related attributions). In particular, buying unnecessary items and surrendering to one’s consumption desires caused disappointment with oneself and hence were experienced negatively.

*“Negative emotions were mostly guilt and anxiety because I ordered more than I need. Consuming and collecting stuff (to your home) is distressing.” (Female, 29)*

*“I felt guilty and greedy for getting tempted - I ordered sweets in bulk packages. I wouldn’t have bought them from a physical store.” (Male, 28)*

One’s unpleasant financial situation (22% of attributes related to oneself) also caused negative emotions as both a lack of money and “spending money” were reported as “distressing.” Overall, consuming seemed to cause mixed emotions for many respondents; shopping induced an inner battle in which the many negative and positive aspects of shopping were considered simultaneously, as the following quote demonstrates.

*“Shopping for children’s clothes makes me happy, but at the same time it costs and I don’t really have money for this hobby. I am perhaps a little hooked on this, and in the midst of a hectic and busy everyday life, I get pleasure from it. But my wallet does not*

*like it at all. I have promised to stop, but online shopping is so easy, and Instagram and Facebook are so full of wonderful children's clothes that I cannot resist them." (Female, 33)*

Pondering one's purchasing choices and the different aspects was a cause of stress for the study participants. Negative emotions were reported by some participants, as they were not able to decide whether they were making a good purchase during their visit to an online store (15% of attributes related to the category of oneself).

**The sociomaterial environment.** Considering the context of consumption and worrying about its environmental effects was a cause of concern among the study participants. Today's environmental problems and the irresponsible actions of people (46% of attributes related to the sociomaterial environment) were reported as a cause of negative emotions while visiting an online store. Today's culture of consumption was found to be troubling due to its harmful consequences for the environment. The act of considering irresponsible and unnecessary consumption caused frustration and anguish among respondents.

*"I'm annoyed as there are so many products produced in the world that really do not need to be produced. All kinds of useless trash." (Female, 58)*

*"I became frustrated and annoyed at the fact that stores have to have absurdly large selections available all the time, because then much of it is eventually thrown away when there is no demand. Less would be enough." (Female, 35)*

In addition, the purchase environment (such as other participants in the physical space in which the online shopping was being done) was also named as a cause of negative emotions. Family members such as spouses and even dogs were accused of contributing negatively to one's shopping experience by disturbing one's concentration during a visit to an online store or by not contributing enough to the purchase process (29% of attributes related to the sociomaterial environment).

*"I felt anger and frustration when I tried to make my spouse participate in the decision making and tell his opinion." (Female, 28)*

*"Negative emotions were caused by the coughing and questioning spouse sitting next to me." (Female, 34)*

Furthermore, the purchase context (18% of attributes related to the sociomaterial environment) was also reported as a cause of negative emotions. These negative emotions were explained with feelings of shame and "forced buying." Some respondents reported that they were ashamed to buy from the store they had chosen, and thus expe-

rienced negative emotions. Furthermore, shopping for certain products such as groceries were reported as acts of “forced buying,” meaning that such mandatory purchases always caused negative emotions.

## **5 Discussion, conclusions, and managerial implications**

The aim of this study was to gain a greater understanding of customer experience formation in the context of online shopping and from the perspective of a customer (as described by the customers themselves). As previous research has predominantly examined how different service elements directly affect online customer experience as an outcome [24,25] and the interaction between service providers and customers has been highlighted [49], the present study contributes to the customer experience literature by investigating customer experience formation more extensively with an open-ended approach and beyond direct customer-company interactions. In other words, this study did not focus on how customers react to different online store characteristics but instead explored what kinds of other issues (in addition to the online store interface) can be meaningful for customers when they are using online services and constructing their customer experience.

Consistent with previous studies, the findings of this investigation highlight the important role of a company with respect to customer experience. As expected based on Attribution Theory and the previous customer experience literature, the respondents in this study attributed most of their negative emotions to the characteristics of an online store. Attribution theory suggests that individuals tend to blame external factors for negative events and issues and this was found to be the case here. As most negative emotions (68%) were caused by unpleasant surprises and disappointments caused by the online store, our findings, consistent with the existing literature [34,50], highlight the importance of both a well-functioning user interface and carefully selected online store content in making the purchase journey as easy and pleasant as possible for the customer.

When considering their positive emotions, the respondents attributed most of these to “themselves” (47%) (i.e., by making reference to their own efforts and skills). Positive emotions were experienced due to respondents’ personal success as a consumer. These findings are consistent with Attribution theory, suggesting that individuals tend to explain positive issues using internal attributions and a self-serving bias and by attributing their success to their own abilities. Previous customer experience studies have reported similar findings. For instance, Jackson et al. [47] showed that tourists were more likely to use internal attributions for positive outcomes and external attributions for negative experiences. Hence, as individuals’ reasoning can be rather self-enhancing (and as positive emotions seem to be especially self-emphasized), it is important for online stores and other service providers to find ways that customers are able to perceive themselves as being successful, clever, and skillful shoppers (i.e., to feel good about themselves) during their online encounters. Such methods could entail highlighting the positive outcomes of a purchase and providing customers with an opportunity to find something unexpected in an online store.

As a whole, our findings demonstrate the complexity of the customer experience both in terms of when customers construct their customer experiences and the multiple factors that can contribute to it. The findings indicate that the online store environment is not the only contributor to customer experience during a shopping visit. Customers actively consider and evaluate themselves, the surrounding world and other people when using online services and when constructing their customer experience. The customer experience is affected by the elements (such as other people) in the physical space in which the customer is using the online store. On the other hand, the perceived impact of one's purchasing decision on the sociomaterial environment and on other people, can influence the customer experience. Therefore, it can be concluded that by its choice of service design, the online store can influence how customers perceive the store while visiting it. Nevertheless, some of the emotions experienced by a customer cannot be influenced by the company as a customer's thoughts may not be focussed on the actual moment of consumption and the online store interface. Consistent with Trischler et al. [41], our findings indicate that in future studies other factors external to the online store should be more carefully considered when attempting to understand the holistic customer experience.

Finally, the findings demonstrate that customers' emotions during a visit to an online store can be versatile and cannot be inferred, for example, on the basis of the purchase decision. All of the respondents of this study completed the survey after they had successfully placed an order at an online store. Whereas customers who have placed an order may appear as "satisfied and happy" from a company's perspective, the findings of this study demonstrate that it may not be the case; many respondents reported experiencing strong negative emotions during their store visit but ended-up purchasing despite those emotions. Furthermore, some experienced both very strong positive and negative emotions during their visit, which demonstrates that an online store visit can be an emotional rollercoaster. From a managerial perspective, these findings highlight the importance of understanding the entire customer journey during an online store visit and not just the outcome (such as a purchase). Even though the negative emotions experienced during an online store visit may not contribute to the accompanying purchase, they may persist in the mind of a customer and affect future customer behavior (such as the willingness to shop at the store again in the future) [13].

The customer insights gained through this study can be utilized and further investigated in research and practice aiming to more thoroughly understand online shopping behavior and the customer experience therein. As the data for this study was collected from Finnish consumers and because our sample was dominated by women and consumers under 40-years of age, replications of this study in other countries with more balanced demographic samples could provide new insights. In addition, the formation of negative and positive customer experiences in the online context should be studied further with various methods and in diverse service settings. From a managerial perspective in particular, it is important to identify the causes of customers' positive and negative emotions, as they may have an effect on customers' future choices when shopping. Researchers and practitioners are encouraged to study the customer experience beyond that of the company-customer interaction, as well as during the entire customer journey encompassing the prepurchase and postpurchase phases.



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**Appendix 1. The descriptive statistics of the respondents**

	<b>Negative emotions</b>		<b>Positive emotions</b>	
	N=215	%	N=138	%
<b>Gender</b>				
Male	26	12.1%	23	16.7%
Female	189	87.9%	115	83.3%
<b>Age</b>				
18–29 years	69	32.1%	47	34.1%
30–39 years	59	27.4%	36	26.1%
40–49 years	42	19.5%	26	18.8%
50–59 years	29	13.5%	20	14.5%
60– 69 years	10	4.7%	6	4.3%
70– years	6	2.8%	3	2.2%
<b>On average, how often do you shop online?</b>				
Daily	1	0.5%	2	1.4%
Weekly	54	25.1%	29	21.0%
Monthly	111	51.6%	69	50.0%
Yearly	44	20.5%	36	26.1%
Less than yearly	5	2.3%	2	1.4%
<b>How many times have you shopped in this online store?</b>				
Never	76	35.3%	45	32.6%
1–3 times	83	38.6%	47	34.1%
4–10 times	41	19.1%	33	23.9%
Over 10 times	15	7.0%	13	9.4%