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## Consumer Emotions and E-commerce: A Literature Review

MATIAS LIEVONEN

**Abstract** The purpose of this paper is to take a look at the current state of the research related to consumer emotions in the context of electronic commerce (e-commerce). As the popularity of online shopping is constantly growing, the author performed an integrative literature review of 66 journal articles on e-emotions (consumer emotions visible in an online environment) and classified the articles into four groups. According to the analysis of the groups, consumer emotions are present at various points of the e-commerce relationship from pre-purchase intentions to post-consumption behavior. Based on this literature review, directions for future research in e-emotions are also introduced.

**Keywords:** • Emotions • Electronic Commerce • Online Shopping • Literature Review •

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## 1 Introduction

Recent statistics show that consumers are more committed to electronic commerce (e-commerce) than ever. The prediction is that 46.4 % of all Internet users worldwide will purchase products online in 2017 (Statista, 2017). The growing interest in e-commerce also means that varying consumer emotions are likely involved before, during, and after online shopping encounters. Emotions are important during these encounters as alongside trust they attempt to moderate the relationship quality between the consumer and the service provider of online services (Sanchez-Franco & Rondan-Cataluna, 2009). New technologies can enhance the shopping experience, but long-lasting evidence shows that online users are individuals with unique characteristics and emotions (Burke, 2002). Almost two decades ago, scholars indicated that affective and emotional dimensions truly matter as part of the consumer decision-making process on- and offline (Shiv & Fedorikhin, 1999).

Emotions differ from similar concepts, such as sensations and feelings, and emotions “are also initiated by some particular objects or events, real or imagined, and they tend to motivate particular kinds of behavior” (Robinson, 2008, p. 155). In this paper, the focus is on e-emotions, which are seen as emotional states of a consumer that are somehow apparent and visible in an online environment. Consequently, consumer e-emotions matter at multiple levels of the service relationship, including pre- and post-consumption stages. Thanks to the development of technology and the expansion of social networking environments, the online environment has changed drastically in recent years making especially post-consumption behaviors more public. For example, electronic word-of-mouth (eWOM) has a significant role in consumer emotion build-up and affects other consumers’ pre-consumption stages (Chu & Kim, 2011). The current development has led to the situation in which communication is also more dynamic and active than ever before (Brodie et al., 2011; Freeman et al., 2010; Luoma-aho & Paloviita, 2010; Luoma-aho & Vos, 2010).

Active interaction between consumers, stakeholders, and organizations is part of the so-called engagement process (Brodie et al., 2013; Brodie et al., 2011; van Doorn et al., 2010). Additionally, online users engage with various objects, such as brands, products, and virtual brand communities (Brodie et al., 2013). These engagement processes are often accompanied by different emotions and behaviors that thus play a central role in e-commerce, as well as in stakeholder relations in general (Luoma-aho & Paloviita, 2010).

Although literature reviews of online shopping motives and intentions (e.g., Monsuwé, Dellaert, & de Ruyter, 2004), as well as of the adoption of computer-mediated services (e.g., Beldad, de Jong, & Steehouder, 2010), exist, there is an emerging need to generalize the current state of the research related to consumer emotions in the context of online shopping. As technology and consumer behavior are changing, management must understand this development and identify possible consumers’ and customers’ pain points (Lemon & Verhoef, 2016). Currently, the research related to e-emotions and e-commerce

is fragmented across various fields and disciplines, and a comprehensive understanding of the topic is difficult.

This study responds to this need and is implemented as an integrative literature review. This paper is a preliminary attempt to gather the research literature related to consumer e-emotions in the context of online shopping and the current state of the research across various disciplines—information technology, psychology, communication, and marketing—was synthesized and analyzed. By gathering previous articles published in peer-reviewed journals, the goal in this paper is to classify the literature related to the topic, and through review and synthesis introduce the key findings.

This paper is organized as follows: First, the process of the integrative literature review is introduced. Second, the relevant literature gathered during the process is assembled and the results introduced. Third, the results are combined, and the synthesis and analysis of the literature review are presented. The key findings in the literature are addressed. Finally, the validity and reliability of the study are discussed, and suggestions for future research are provided.

## **2 Methodology: Integrative Literature Review**

This study utilized the integrative literature review method (see Torraco, 2005). Integrative literature reviews balance between less structured descriptive literature reviews and more structured systematic literature reviews (Birmingham, 2000). This method “is a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated” (Torraco, 2005, p. 356). Although this study was integrative, it followed Fink’s (2010) model of systematic literature review consistently to add more validity and reliability.

The first step in Fink (2010) model is to select the research questions. This step is critical because the research questions aim the researcher in the decision-making process and address what kind of articles should be included (Jesson, Matheson, & Lacey, 2011). This study answers the following research questions: 1) According to previous literature, what kind of research and studies have been put into practice related to consumer emotions in online shopping? 2) According to the literature analyzed in this study, what are the recent key findings related to consumer emotions in e-commerce?

The second step was selecting the databases from which to look for literature (Fink, 2010). In this study, the goal was to cover interdisciplinary literature related to emotions in e-commerce across the following disciplines: information technology, psychology, communication, and marketing. The following bibliographic databases were utilized: ABI/INFORM Complete (ProQuest), Business Source Elite (EBSCO), Computer and Information Systems Abstracts (ProQuest), Emerald Insights (Journals) (Emerald), ProQuest Psychology Journals (ProQuest), and PsycARTICLES (the American Psychological Association).

After the databases were selected, search terms were chosen (Fink, 2010). Search terms should frame the topic enough so the appropriate literature can be found. However, the framing should not be too tight (Fink, 2010). The search terms were defined based on the research questions. The literature searches were conducted in February 2017. Advanced or multi-field searches were used in the databases, and the following search terms were applied in order to find relevant literature: *emotion\* AND online AND shop\* OR e-commerce*. The search terms were restricted to be present in the key words or subject terms. The author also applied the limitation of the search to peer-reviewed content if this option was applicable in the databases in the advanced search options. The ProQuest and EBSCO databases offered this option and the Emerald and American Psychological Association databases did not offer this option in the advanced search. The input of the search terms in the databases gave the following results: ABI/INFORM Complete (ProQuest), 73 results; Business Source Elite (EBSCO), 13 results; Computer and Information Systems Abstracts (ProQuest), 73 results; Emerald Insights (Journals) (Emerald), 251 results; ProQuest Psychology Journals (ProQuest), 73 results; and PsycARTICLES (American Psychological Association), 1 result.

As can be seen from the search results, all ProQuest databases offered the same amount of literature. The results were also similar in content so the three ProQuest databases were treated as one entity during the review process. According to Fink (2010), the preliminary literature searches usually give many results. Therefore, it is important to screen for articles with certain criteria to find the relevant articles (Fink, 2010). After the searches were conducted in the databases, the practical screen and methodological quality screen (Fink, 2010) was applied by executing following inclusion criteria: peer-reviewed journal articles (also including content from the Emerald and APA databases), published since 2006, and studies related to emotions in the context of e-commerce or online shopping. The following research designs and content were excluded from the review: literature reviews and conference proceedings.

The review (Fink, 2010) was conducted in two stages. In the first stage, the headings and abstracts of the studies were read. Through this, the most likely relevant literature to include in the final review was found as Jesson et al. (2011) suggested. In the second stage, the literature was scanned more thoroughly. At this stage, it was also important to analyze research designs, findings, and conclusions of the studies before deciding what literature should be included for the final review (Jesson et al., 2011). The articles in the review are shown in Table 1 in the next section.

After the literature for the final review was apparent, it was time to synthesize the results (Fink, 2010). These conclusions are introduced in a more specific manner in the following sections, where the content of the review is interpreted and analyzed. The key findings of the studies are also reviewed more thoroughly in later parts of this paper.

### **3 Results of the Literature Review**

After a careful scan of the available literature, 66 peer-reviewed articles were included in the final review. Studies that had interfaces with consumer emotions in the context of e-commerce were included. This was evaluated through keywords, and how, at the same time, the studies focused on the topic in a recognizable way in the research design and/or findings. Articles that did not match the criteria or did not cover the topic clearly enough were excluded from the review.

The literature consisted of studies covering (either directly or indirectly) information technology, psychology, communication, and/or marketing. The articles were classified into four groups: studies related to website design, characteristics, or atmosphere and how they generally affect consumer emotions and behavior; studies related to pre-consumption emotions and predictors of consumers' online shopping intentions and activities, such as the effects of online user reviews; studies related to consumer emotions during actual online shopping encounters, for example, decision making in purchase situations; and studies related to consumer post-consumption emotions and behavior, such as repurchase intention and commitment to eWOM.

In general, recent studies focused on consumer e-emotions during all stages of the (service) relationship. This result supports the assumption that e-emotions are not just restricted to the purchase or buying situation. In fact, consumer emotions and behaviors are under scrutiny in multiple situations. People eagerly read reviews and participate in public discussion before making a purchase decision, and even after the consumption stage, there is a possibility that the experience turns either good or bad. Consumers possibly continue the service relationship, disengage with the service provider (Bowden, Gabbott, & Naumann, 2015), or even engage in eWOM (Chu & Kim, 2011) after e-commerce encounters.

### **4 Analysis of the Key Findings in the Reviewed Articles**

The literature was analyzed in the four groups. The idea was to explore and compare the key findings within the groups and draw conclusions based on these findings. The literature is presented in Table 1. In addition, the most relevant and synthesized key findings of the studies of each group, and the authors, are introduced.

Table 1: Reviewed literature

Group of the reviewed articles	Relevant key findings	Author and year
<p><b>1) Studies related to website design, characteristics, or atmosphere and how they generally affect consumer emotions and behavior</b></p>	<p>Consumers' emotions influence their perception of atmospheric cues (such as music and color) on websites affecting site attitude, site involvement, and purchase intention.</p> <p>Human images and human brands on websites stimulate higher levels of enjoyment and positive emotions.</p> <p>Product presentation has a significant effect on consumers' emotional responses on websites.</p>	<ul style="list-style-type: none"> <li>▪ Wang et al., 2014</li> <li>▪ Mazaheri et al., 2014</li> <li>▪ Mazaheri, Richard, &amp; Laroche, 2012</li> <li>▪ Fei-Fei et al., 2009</li> <li>▪ Bui &amp; Kemp, 2013</li> <li>▪ Zhang et al., 2014a</li> <li>▪ Davis, Wang, &amp; Lindridge, 2008</li> <li>▪ Young &amp; Im, 2012</li> <li>▪ Jung-Hwan, Kim, &amp; Lennon, 2009</li> <li>▪ Porat &amp; Tractinsky, 2012</li> <li>▪ Wu, Cheng, &amp; Yen, 2008</li> <li>▪ Ding &amp; Lin, 2012</li> <li>▪ Wu et al., 2014</li> <li>▪ Jeong et al., 2009</li> <li>▪ López &amp; Ruiz, 2011</li> </ul>
<p><b>2) Studies related to pre-consumption emotions and predictors of consumers' online shopping decisions and activities, such as the effects of online user reviews</b></p>	<p>Cultural differences exist between online retailer reputation and retail quality, and how they affect consumer emotional and cognitive reactions and intentions before shopping.</p> <p>If online user reviews are inconsistent, they affect consumers' purchase intention.</p> <p>In addition, positive emotions mediate the relationship between personalization and purchase intentions.</p> <p>Consumer attitude, perceived difficulty of</p>	<ul style="list-style-type: none"> <li>▪ Zhang et al., 2014b</li> <li>▪ Pappas et al., 2014</li> <li>▪ Lee et al., 2016</li> <li>▪ Kim, Yang, &amp; Bu, 2013</li> <li>▪ Scholl-Grissemann &amp; Schnurr, 2016</li> <li>▪ Yin, Bond, &amp; Zhang, 2014</li> <li>▪ Luo et al., 2011</li> <li>▪ Kang, 2014</li> <li>▪ Peng et al., 2016</li> <li>▪ Sharma &amp; Lijuan, 2014</li> <li>▪ Quevedo-Silva et al., 2016</li> <li>▪ Choi &amp; Nazareth, 2014</li> <li>▪ Yen, 2014</li> <li>▪ Chen, Wu, &amp; Chang, 2013</li> </ul>

	<p>website use, and shoppers' previous experience are also antecedents of purchase intentions.</p> <p>To create an emotional attachment to browsing and increase purchase intention, online retailers should focus on consumer pleasure and community relationships.</p>	<ul style="list-style-type: none"> <li>▪ Hernandez, Jimenez, &amp; Martín, 2009</li> <li>▪ Soto-Acosta et al., 2014</li> <li>▪ Jin &amp; Lee, 2014</li> </ul>
<p><b>3) Studies related to consumer emotions during actual online shopping encounters: for example, decision making in purchase situations</b></p>	<p>High-quality web design interface and consumers' product involvement elicit positive emotions during shopping. In addition, consumers' product involvement is important for eliciting positive emotions.</p> <p>Cognitive and emotional responses play a key role in communication through online stores.</p> <p>A linear relationship exists between the level of interactivity provided by an online store and pleasure, which increases the likelihood of purchasing.</p> <p>Enhanced perceptions of human connection and the formation of emotional bonds provide a competitive advantage for online retailers.</p> <p>Mixed emotions are likely to lead consumers to leave the stores.</p>	<ul style="list-style-type: none"> <li>▪ Chechen et al., 2016</li> <li>▪ Richard &amp; Chebat, 2016</li> <li>▪ Guo et al., 2015</li> <li>▪ Moody et al., 2014</li> <li>▪ Bonera, 2011</li> <li>▪ Peiris, Kulkarni, &amp; Mawatha, 2015</li> <li>▪ Huang &amp; Kuo, 2012</li> <li>▪ Yao &amp; Liao, 2011</li> <li>▪ Li, Sarathy, &amp; Zhang, 2008</li> <li>▪ Ozen &amp; Engizek, 2014</li> <li>▪ Kim &amp; Lennon, 2010</li> <li>▪ Ballantine &amp; Fortin, 2009</li> <li>▪ Hsin &amp; Hsin-Wei, 2011</li> <li>▪ Moran &amp; Kwak, 2015</li> <li>▪ Penz &amp; Hogg, 2011</li> <li>▪ Liao et al., 2016</li> <li>▪ Chae &amp; Kun, 2013</li> <li>▪ Wang et al., 2007</li> <li>▪ Wen et al., 2014</li> </ul>

	<p>Hedonic value drives online impulse buying tendencies.</p>	
<p><b>4) Studies related to consumer post-consumption emotions and behavior, such as repurchase intention and commitment to word-of-mouth</b></p>	<p>Positive emotions increase post-consumption satisfaction, which positively affects post-purchase intentions. In turn, negative emotions are an important mediator between dissatisfaction and repurchase intention.</p> <p>Satisfaction and perceived usefulness of a website contribute to individual online shopping continuance intention in the future.</p> <p>Transaction cost advantage, preview, and trust significantly and positively affect satisfaction, which, in turn, influences repurchase intention.</p> <p>Emotions felt after visiting a web store positively influence the perceptions of the website atmospherics that, in turn, influence a set of behavioral variables ending with intention to (re-)purchase.</p> <p>Online shoppers' excitement and positive perceived quality lead to positive word-of-mouth (WOM) and increase the intent to return.</p>	<ul style="list-style-type: none"> <li>▪ Kuo &amp; Wu, 2012</li> <li>▪ Yunfan, Yaobin, &amp; Bin, 2012</li> <li>▪ Lu, Lu, &amp; Wang, 2012</li> <li>▪ Urueña &amp; Hidalgo, 2016</li> <li>▪ Mohamed et al., 2014</li> <li>▪ Chou &amp; Hsu, 2016</li> <li>▪ Richard &amp; Habibi, 2016</li> <li>▪ Jayawardhena &amp; Len, 2009</li> <li>▪ Gounaris, Dimitriadis, &amp; Stathakopoulos, 2010</li> <li>▪ Kim et al., 2014</li> <li>▪ Lim, 2015</li> <li>▪ Lin, 2012</li> <li>▪ Sharma &amp; Lijuan, 2015</li> <li>▪ Vos et al., 2014</li> <li>▪ Matute et al., 2016</li> </ul>

As can be seen in table 1, the studies indicated that the research in e-emotions is diverse and versatile. Moreover, the perspectives in these articles were broad and interdisciplinary. The studies explored consumer online emotions, behaviors, and their relations to e-commerce at multiple levels from pre-purchase to post-consumption stages. Next, this paper takes a closer look on the key findings presented in Table 1.

#### **4.1 Website Design Effects on Consumer Emotions**

According to the key findings in the articles in Group 1, the website characteristics, design, and atmosphere usually have a major influence on consumers' emotions, as well as on behavior. First, cultural differences exist in emotional responses and perceptions in online shopping environments (Davis et al., 2008; Mazaheri et al., 2014). Emotions are crucial in the perception stage of the atmospheric and characteristic cues of websites and affect consumers' attitude toward the site, level of involvement, and purchase intention (Mazaheri et al., 2012; Porat & Tractinsky, 2012; Wang et al., 2014; Wu et al., 2014; Zhang et al., 2014a).

Studies show a website that uses images of humans, instead of generic cues, stimulates higher levels of positive emotions and enjoyment (Wang et al., 2014). Music and colors used on these sites also have an effect on the emotional responses of potential customers and users (Bui & Kemp, 2013; Ding & Lin, 2012; Fei-Fei et al., 2009; Wu et al., 2008). Product presentation and store layout are also important as they are emotionally valid characteristics and part of a pleasant shopping experience (Jung-Hwan et al., 2009; Young & Im, 2012). Interestingly, emotional trust has a role in influencing consumers' purchase intention (Zhang et al., 2014), and cognitive and emotional responses play a key role in communication through the websites (López & Ruiz, 2011). In addition, website patronage intention is affected by pleasure, arousal, entertainment, and esthetic experiences consumers receive (Jeong et al., 2009).

#### **4.2 Pre-consumption Emotions**

According to the key findings in the articles in Group 2, pre-consumption emotions and expectations of certain e-commerce services are usually influenced by the information available online. The information is often available through user reviews, and through public discussion on social media and discussion forums. However, information overload has a negative effect on consumer emotions and thus affects purchase intention (Soto-Acosta et al., 2014).

Short- or long-term price drops significantly affect how consumers respond in public product reviews (Lee et al., 2016). If online user reviews are inconsistent, cognitive trust and emotional trust are affected (Zhang et al., 2014b). As Zhang et al. (2014a) claimed, emotional trust most likely affects purchase intention (Sharma & Lijuan, 2014). Anxious or enthusiastic online reviews are considered more helpful than angry reviews (Yin et al., 2014). The amount of review manipulation also matters. Consumers usually have a

negative view if online reviews are deceptive or manipulated, but the degree of negativity varies depending on the manipulation tactics (Jin & Lee, 2014; Peng et al., 2016).

If there is proof that the potential e-commerce retailer has had severe trust violations in the past, reconciliation efforts are meaningful when consumers ruminate on their potential options (Choi & Nazareth, 2014). Strategies for repairing trust are effective in building a positive mood, which, in turn, is an important mediator in rebuilding consumer trust (Chen et al., 2013). Additionally, positive emotions mediate the relationship between personalization and purchase intentions (Pappas et al., 2014), and the consumer's experience affects these intentions as well (Hernandez et al., 2009). However, the reconciliation tactics should be moderate, as consumers are affected by the tactics used (Choi & Nazareth, 2014; Peng et al., 2016). Moreover, the severity of the trust violation also affects consumer perceptions (Choi & Nazareth, 2014). How these efforts are documented and presented publicly is also important. Consumers seek this information, and they evaluate the firm's reputation (Kim et al., 2013) so that they can be certain and trust the online shop they are going to use.

To create an emotional attachment to browsing and increase purchase intention, online retailers should focus on consumer pleasure and community relationships (Luo et al., 2011). Hedonic choice options are also important as they are more strongly related to positive emotions and pleasurable experiences than utilitarian online shopping options (Scholl-Grisseemann & Schnurr, 2016), even though hedonic performance expectancies are not always positively related to usage intentions (Kang, 2014). Cognitive and emotional responses, as well as the interaction, play a key role in communication through websites (Yen, 2014). This also indicates how tempting the websites look to potential customers and how easy the sites are to use (Quevedo-Silva et al., 2016).

### **4.3 Consumer Emotions During Actual Online Shopping Encounters**

According to the key findings in the articles in Group 3, emotional and rational routes, as well as e-service quality, influence consumers during the online shopping process (Hsin & Hsin-Wei, 2011; Wen et al., 2014). Not only high-quality website design but also consumers' product involvement elicits positive emotions during these encounters (Chechen et al., 2016). Emotions encompass pleasure, arousal, and dominance, and they precede cognition (Richard & Chebat, 2016). Moreover, a linear relationship exists between the level of interactivity provided by an online store and pleasure (Ballantine & Fortin, 2009). Pleasure increases the likelihood of purchasing during the e-commerce encounters (Kim & Lennon, 2010), and at the same time, consumers' previous emotional experiences can affect their behavior (Guo et al., 2015). In these circumstances, using human brands, and utilizing enhanced perceptions of human connections and the formation of emotional bonds, could provide a competitive advantage for online retailers (Ballantine & Fortin, 2009; Chae & Kun, 2013; Wang et al., 2007).

Incidental moods tend to increase process impulsivity in online shopping decisions (Huang & Kuo, 2012). Differences in users' emotional experiences on e-commerce

websites are primarily embodied in subjective emotional ratings and eye movements (Guo et al., 2015). Mixed emotions are likely to lead to consumers leaving the stores (Penz & Hogg, 2011).

A common issue for e-commerce retailers is that customers are not ready to proceed through checkout procedures. For example, emotions can have a significant impact on the decision to give personal information that is necessary (such as credit card numbers) to complete a purchase on a website (Li et al., 2008). The consumer's online shopping cart might already be filled with various products, but especially first-time customers might be suspicious (Li et al., 2008). Trust and distrust coexist in online e-commerce relationships and can result in ambivalence when they have high attitudinal values represented in emotions, beliefs, or behaviors (Moody et al., 2014). Use of the principles of web usability guidelines and trust indicators will improve consumers' emotion about adopting e-commerce (Peiris et al., 2015) and increase the likelihood that consumers complete the checkout process. The purchase encounter must be as reliable as possible because perceived risk in e-commerce has a significant negative effect on consumers' satisfaction (Yao & Liao, 2011).

Hedonic values and aspects are important for online store users. Hedonic values increase online impulse buying tendencies (Ozen & Engizek, 2014). Interestingly, consumers who are under stress have a higher impulse buying tendency as well (Moran & Kwak, 2015). High or low hedonistic emotional commitment seems to be important to the perception of the usefulness of an online store (Bonera, 2011). For utilitarian products, therefore, it is important to offer a high-quality web design interface and move toward enhancing consumers' product involvement, as they are also crucial for eliciting positive consumer emotions (Chechen et al., 2016; Liao et al., 2016).

#### **4.4 Post-purchase Emotions**

According to the key findings in the Group 4 articles, the post-consumption or post-purchase stages are crucial for e-commerce retailers. Customers and consumers tend to expect that after the purchase has been successfully executed, the service relationship will continue, ordered products are received on time, and the product qualities are as expected (Sharma & Lijuan, 2015; Vos et al., 2014). Positive emotions increase post-satisfaction, which positively affects post-purchase intentions as well (Kuo & Wu, 2012).

Emotional stability moderates the relationship between the perceived usefulness of a website and satisfaction in online shopping (Mohamed et al., 2014). Emotions felt after visiting a website positively influence consumers' perceptions of the website atmospherics that, in turn, influence a set of behavioral variables ending with intention to purchase again (Richard & Habibi, 2016). For example, transaction cost advantage, preview, and trust significantly and positively affect satisfaction, which, in turn, influences repurchase intention (Kim et al., 2014). Moreover, satisfaction and perceived usefulness of the website contribute to individual online shopping continuance intention (Lim, 2015; Mohamed et al., 2014). Interestingly, shopping habit increases the influence

of emotional evaluation on continuance, while at the same time habit weakens the impact of rational evaluation on continuance intention (Chou & Hsu, 2016).

Online shoppers' excitement leads to positive word-of-mouth (WOM) and increases the intent to return (Jayawardhena & Len, 2009). Moreover, online service quality has a positive effect on satisfaction, while also influencing, directly and indirectly through satisfaction, consumers' behavioral intentions: site revisit, word-of-mouth communication, and repeat purchases (Gounaris et al., 2010). Although electronic WOM has a positive direct effect on consumers' intention to repurchase, quantity has a negative influence (Matute et al., 2016). Thus, it is necessary to monitor the tone of consumers' public discussion during the post-purchase stage.

If service failures have occurred, the switching intentions of consumers who are affected by negative emotions become stronger when the failures are controllable factors that could be managed and prevented (Lin, 2012). However, if consumers are treated in an appropriate way after the failure, the studies show that distributive justice (such as monetary compensation) increases positive emotions and decreases negative ones (Kuo & Wu, 2012). Furthermore, negative emotions also affect repurchase intention (Lu et al., 2012; Yunfan et al., 2012). In addition, procedural justice, such as received fairness from the company, enhances satisfaction, especially after the consumer has complained and the company seeks service recovery (Urueña & Hidalgo, 2016).

## 5 Conclusions

This study was a preliminary attempt to group and analyze peer-reviewed journal articles related to consumer emotions in the context of e-commerce. The author aimed at contributing to academia and practice, and introduced four groups of the current state of consumer e-emotions research in the context of online shopping. Groups 1 and 2 included studies on the effects of website design on emotions and studies on pre-purchase emotions. Groups 3 and 4 included studies on actual online shopping encounters and their effects on emotions, as well as studies on post-purchase emotions and behavior. In addition, the author synthesized and analyzed the key findings of the reviewed studies. By recognizing the emerging need and timely challenge of understanding online users and their emotions better, the goal of this paper was to increase the knowledge of the topic, and the paper brought up new perspectives by combining the previous research findings.

According to the analysis, consumer emotions are present at various stages of the e-commerce relationship. For example, website design and characteristics affect consumer emotions, which, in turn, mediate site involvement. In the pre-consumption stage, emotions initiate the purchase intention, and during actual online shopping encounters, positive emotions and trust increase the likelihood of purchases. Post-consumption emotions are also interesting as they mediate the behavioral responses of the consumer, such as word-of-mouth and intention to return to the web store.

As a preliminary attempt, this study has several limitations. Most noticeably, the search terms and databases used in the process affected the availability of the reviewable literature. Using different search criteria and databases could, naturally, provide alternative results and guide the indications to alternative directions than presented in this paper. However, using similar search terms should be possible in almost any academic database and give similar results.

From a research method perspective, an integrative literature review has advantages and disadvantages. The most recognizable difference between this study and systematic reviews was the analysis. Systematic reviews aim at offering a systematic descriptive review analysis or even perform a meta-analysis (Fink, 2010), while the goal of this paper was simply to combine the current state of the research in a condensed form and reconstitute the current knowledge by utilizing conceptual grouping. The author also wanted to synthesize the results and analyze the key findings with flexibility in mind to add something new to the topic as Baumeister and Leary (1997) suggested. Reviews that were conducted too systematically and mechanically might lack essential details.

Additionally, integrative literature reviews do not have to differ much from systematic reviews, if they follow a clear pattern and utilize a structured methodological grasp (Salminen, 2011). The author accomplished this by implementing Fink's (2010) systematic method diversely during the review process. These actions also added credibility and validity to the study (Dixon-Woods, Booth, & Sutton, 2007). This mixed approach was also flexible, as the literature related to the topic was fragmented across various fields and disciplines. Finally, yet importantly, the author's goal was to follow Torracco (2005) who implied that an integrative literature review has "an important role in stimulating future research on the topic" (p. 364). As the tendency of positive and negative consumer e-emotions in e-commerce is still somewhat unclear, the author suggests that future studies should answer the following research questions: What usually causes positive emotions in the context of e-commerce when customers are motivated and intend to buy from an online store? What emotions are present when consumers have negative e-commerce experiences? What prevents consumers from buying from an online store?

## References

- Ballantine, P. W., & Fortin, D. R. (2009). The effects of interactivity and product information on consumers' emotional responses to an online retail setting. *International Journal of Internet Marketing and Advertising*, 5(4), 260–271.
- Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. *Review of General Psychology*, 1(3), 311–320.
- Beldad, A., de Jong, M., & Steehouder, M. (2010). How shall I trust the faceless and the intangible? A literature review on the antecedents of online trust. *Computers in Human Behavior*, 26(5), 857–869.
- Birmingham, P. (2000). Reviewing the literature. In D. Wilkinson (Ed.), *Researcher's toolkit: The complete guide to practitioner research* (pp. 25–40). City: Publisher.

- Bonera, M. (2011). The propensity of e-commerce usage: The influencing variables. *Management Research Review*, 34(7), 821–837. doi:10.1108/01409171111146706
- Bowden, J. L. H., Gabbott, M., & Naumann, K. (2015). Service relationships and the customer engagement-disengagement conundrum. *Journal of Marketing Management*, 31(7–8), 774–806.
- Brodie, R. J., Hollebeek, L. D., Juric, B., & Ilic, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252–271.
- Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. D. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105–114.
- Bui, M., & Kemp, E. (2013). E-tail emotion regulation: Examining online hedonic product purchases. *International Journal of Retail & Distribution Management*, 41(2), 155–170. doi:10.1108/09590551311304338
- Burke, R. R. (2002). Technology and the customer interface: What consumers want in the physical and virtual store. *Academy of Marketing Science*, 30(4), 411–432.
- Chae, S. W., & Kun, C. L. (2013). Exploring the effect of the human brand on consumers' decision quality in online shopping. *Online Information Review*, 37(1), 83–100. doi:10.1108/14684521311311649
- Chechen, L., Pui-Lai, T., Yun-Chi, W., Palvia, P., & Kakhki, M. D. (2016). The impact of presentation mode and product type on online impulse buying decisions. *Journal of Electronic Commerce Research*, 17(2), 153–168.
- Chen, Y., Wu, J., & Chang, H. (2013). Examining the mediating effect of positive moods on trust repair in e-commerce. *Internet Research*, 23(3), 355–371. doi:10.1108/10662241311331772
- Choi, J., & Nazareth, D. L. (2014). Repairing trust in an e-commerce and security context: An agent-based modeling approach. *Information Management & Computer Security*, 22(5), 490–512. doi:10.1108/imcs-09-2013-0069
- Chou, S., & Hsu, C. (2016). Understanding online repurchase intention: Social exchange theory and shopping habit. *Information Systems and eBusiness Management*, 14(1), 19–45. doi:10.1007/s10257-015-0272-9
- Chu, S.-C., & Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWom) in social networking sites. *International Journal of Advertising*, 30(1), 47–75.
- Davis, L., Wang, S., & Lindridge, A. (2008). Culture influences on emotional responses to on-line store atmospheric cues. *Journal of Business Research*, 61(8), 806–812.
- Ding, C. G., & Lin, C. (2012). How does background music tempo work for online shopping? *Electronic Commerce Research and Applications*, 11(3), 299–307. doi:10.1016/j.elerap.2011.10.002
- Dixon-Woods, M., Booth, A., & Sutton, A. J. (2007). Synthesizing qualitative for nursing practice. *Systematic Reviews*, 7(3), 137–148.
- Fei-Fei, C., Chin-Shan, W., & David, C. Y. (2009). The effect of online store atmosphere on consumer's emotional responses - an experimental study of music and colour. *Behaviour & Information Technology*, 28(4), 323–334. doi:10.1080/01449290701770574
- Fink, A. (2010). *Conducting research literature reviews: From the Internet to the paper*. Thousand Oaks, CA: Sage.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B., & de Colle, S. (2010). *Stakeholder theory: The state of the art*. Cambridge: Cambridge University Press.
- Gounaris, S., Dimitriadis, S., & Stathakopoulos, V. (2010). An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. *The Journal of Services Marketing*, 24(2), 142–156. doi:10.1108/08876041011031118

- Guo, F., Cao, Y., Ding, Y., Liu, W., & Zhang, X. (2015). A multimodal measurement method of users' emotional experiences shopping online. *Human Factors & Ergonomics in Manufacturing & Service Industries*, 25(5), 585–598. doi:10.1002/hfm.20577
- Hernandez, B., Jimenez, J., & Martín, J. M. (2009). Adoption vs acceptance of e-commerce: Two different decisions. *European Journal of Marketing*, 43(9/10), 1232–1245. doi:10.1108/03090560910976465
- Hsin, H. C., & Hsin-Wei, W. (2011). The moderating effect of customer perceived value on online shopping behaviour. *Online Information Review*, 35(3), 333–359. doi:10.1108/14684521111151414
- Huang, Y., & Kuo, F. (2012). How impulsivity affects consumer decision-making in e-commerce. *Electronic Commerce Research and Applications*, 11(6), 582–590. doi:10.1016/j.elerap.2012.09.004
- Jayawardhena, C., & Len, T. W. (2009). An empirical investigation into e-shopping excitement: Antecedents and effects. *European Journal of Marketing*, 43(9), 1171–1187. doi:10.1108/03090560910976429
- Jeong, S. W., Fiore, A. M., Niehm, L. S., & Lorenz, F. O. (2009). The role of experiential value in online shopping. *Internet Research*, 19(1), 105–124. doi:10.1108/10662240910927858
- Jesson, J. K., Matheson, L., & Lacey, F. M. (2011). *Doing your literature review. Traditional and systematic techniques*. London: Sage.
- Jin M., Y., & Lee, H.-H. (2014). Consumer responses toward online review manipulation. *Journal of Research in Interactive Marketing*, 8(3), 224–244. doi:10.1108/jrim-04-2013-002
- Jung-Hwan, K., Kim, M., & Lennon, S. J. (2009). Effects of web site atmospherics on consumer responses: Music and product presentation. *Direct Marketing*, 3(1), 4–19. doi:10.1108/17505930910945705
- Kang, J. M. (2014). Augmented reality and motion capture apparel e-shopping values and usage intention. *International Journal of Clothing Science and Technology*, 26(6), 486–499.
- Kim, H., & Lennon, S. J. (2010). E-atmosphere, emotional, cognitive, and behavioral responses. *Journal of Fashion Marketing and Management*, 14(3), 412–428. doi:10.1108/13612021011061861
- Kim, J., Yang, K., & Bu, Y. K. (2013). Online retailer reputation and consumer response: Examining cross-cultural differences. *International Journal of Retail & Distribution Management*, 41(9), 688–705.
- Kim, M. J., Lee, C., Chung, N., & Kim, W. G. (2014). Factors affecting online tourism group buying and the moderating role of loyalty. *Journal of Travel Research*, 53(3), 380.
- Kuo, Y., & Wu, C. (2012). Satisfaction and post-purchase intentions with service recovery of online shopping websites: Perspectives on perceived justice and emotions. *International Journal of Information Management*, 32(2), 127–138. doi:10.1016/j.ijinfomgt.2011.09.001
- Lee, K. Y., Jin, Y., Rhee, C., & Yang, S. (2016). Online consumers' reactions to price decreases: Amazon's Kindle 2 case. *Internet Research*, 26(4), 1001–1026.
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96.
- Li, H., Sarathy, R., & Zhang, J. (2008). The role of emotions in shaping consumers' privacy beliefs about unfamiliar online vendors. *Journal of Information Privacy & Security*, 4(3), 36–62.
- Liao, C., To, P., Wong, Y., Palvia, P., & Kakhki, M. D. (2016). The impact of presentation mode and product type on online impulse buying decisions. *Journal of Electronic Commerce Research*, 17(2), 153–168.
- Lim, W. M. (2015). Antecedents and consequences of e-shopping: An integrated model. *Internet Research*, 25(2), 184.
- Lin, W. (2012). The determinants of consumers' switching intentions after service failure. *Total Quality Management & Business Excellence*, 23(7-8), 837–854.

- López, I., & Ruiz, S. (2011). Explaining website effectiveness: The hedonic-utilitarian dual mediation hypothesis. *Electronic Commerce Research and Applications*, 10(1), 49–58. doi:10.1016/j.elerap.2010.04.003
- Lu, Y., Lu, Y., & Wang, B. (2012). Effects of dissatisfaction on customer repurchase decisions in e-commerce-an emotion-based perspective. *Journal of Electronic Commerce Research*, 13(3), 224–237.
- Luo, M. M., Chen, J., Ching, R. K. H., & Liu, C. (2011). An examination of the effects of virtual experiential marketing on online customer intentions and loyalty. *The Service Industries Journal*, 31(13), 2163.
- Luoma-aho, V., & Paloviita, A. (2010). Actor-networking stakeholder theory for today's corporate communications. *Corporate Communications: An International Journal*, 15(1), 49–67.
- Luoma-aho, V., & Vos, M. (2010). Towards a more dynamic stakeholder model: Acknowledging multiple issue arenas. *Corporate Communications: An International Journal*, 15(3), 315–331.
- Matute, J., Polo-Redondo, Y., & Utrillas, A. (2016). The influence of EWOM characteristics on online repurchase intention: Mediating roles of trust and perceived usefulness. *Online Information Review*, 40(7), 1090–1110. doi:10.1108/oir-11-2015-0373
- Mazaheri, E., Richard, M. O., Laroche, M., & Ueltschy, L. C. (2014). The influence of culture, emotions, intangibility, and atmospheric cues on online behavior. *Journal of Business Research*, 67(3), 253–259. doi:10.1016/j.jbusres.2013.05.011
- Mazaheri, E., Richard, M., & Laroche, M. (2012). The role of emotions in online consumer behavior: a comparison of search, experience, and credence services. *Journal of Services Marketing*, 26(7), 535–550. doi:10.1108/08876041211266503
- Mohamed, N., Hussein, R., Hidayah, A. Z., & Haghshenas, H. (2014). Insights into individual's online shopping continuance intention. *Industrial Management & Data Systems*, 114(9), 1453–1476.
- Monsuwé, T. P., Dellaert, B. G. C., & de Ruyter, K. (2004). What drives consumers to shop online? A literature review. *International Journal of Service Industry Management*, 15(1), 102–121.
- Moody, G. D., Galletta, D. F., & Lowry, P. B. (2014). When trust and distrust collide online: The engagement and role of consumer ambivalence in online consumer behavior. *Electronic Commerce Research and Applications*, 13(4), 266–282. doi:10.1016/j.elerap.2014.05.001
- Moran, B., M.A., & Kwak, L. E. (2015). Effect of stress, materialism and external stimuli on online impulse buying. *Journal of Research for Consumers*, 27, 26–51.
- Ozen, H., & Engizek, N. (2014). Shopping online without thinking: Being emotional or rational? *Asia Pacific Journal of Marketing and Logistics*, 26(1), 78–93.
- Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Chrissikopoulos, V. (2014). Shiny happy people buying: The role of emotions on personalized e-shopping. *Electronic Markets*, 24(3), 193–206. doi:10.1007/s12525-014-0153-y
- Peiris, P. M., Kulkarni, D., & Mawatha, C. R. D. S. (2015). Implications of trust and usability on E-commerce adoption. *International Journal of Business and Information*, 10(4), 519–556.
- Peng, L., Cui, G., Zhuang, M., & Li, C. (2016). Consumer perceptions of online review deceptions: An empirical study in China. *Journal of Consumer Marketing*, 33(4), 269–280. doi:10.1108/jcm-01-2015-1281
- Penz, E., & Hogg, M. K. (2011). The role of mixed emotions in consumer behaviour. *European Journal of Marketing*, 45(1), 104–132. doi:10.1108/03090561111095612
- Porat, T., & Tractinsky, N. (2012). It's a pleasure buying here: The effects of web-store design on consumers' emotions and attitudes. *Human-Computer Interaction*, 27(3), 235–276.
- Quevedo-Silva, F., Freire, O., Lima-Filho, D. de O., Brandão, M. M., Isabella, G., & Moreira, L. B. (2016). Intentions to purchase food through the internet: Developing and testing a model. *British Food Journal*, 118(3), 572–587. doi:10.1108/bfj-09-2015-0305

- Richard, M., & Chebat, J. (2016). Modeling online consumer behavior: Preeminence of emotions and moderating influences of need for cognition and optimal stimulation level. *Journal of Business Research*, 69(2), 541–553. doi:10.1016/j.jbusres.2015.05.010
- Richard, M., & Habibi, M. R. (2016). Advanced modeling of online consumer behavior: The moderating roles of hedonism and culture. *Journal of Business Research*, 69(3), 1103–1119.
- Robinson, D. L. (2008). Brain function, emotional experience and personality. *Netherlands Journal of Psychology*, 64, 152–167.
- Salminen, A. (2011). Mikä kirjallisuuskatsaus? Johdatus kirjallisuuskatsauksen tyyppeihin ja hallintotieteellisiin sovelluksiin. [What literature review? Introduction to types of literature review in administrative sciences]. University of Vaasa. Retrieved February 1, 2017, from [http://www.uva.fi/materiaali/pdf/isbn\\_978-952-476-349-3.pdf](http://www.uva.fi/materiaali/pdf/isbn_978-952-476-349-3.pdf).
- Sanchez-Franco, M. & Rondan-Cataluna, F. J. (2010). Connection between customer emotions and relationship quality in online music services. *Behaviour & Information Technology*, 29(6), pp. 633–651.
- Scholl-Grisseemann, U., & Schnurr, B. (2016). Room with a view: How hedonic and utilitarian choice options of online travel agencies affect consumers' booking intentions. *International Journal of Culture, Tourism and Hospitality Research*, 10(4), 361–376.
- Sharma, G., & Lijuan, W. (2014). Ethical perspectives on e-commerce: An empirical investigation. *Internet Research*, 24(4), 414–435. doi:10.1108/intr-07-2013-0162
- Sharma, G., & Lijuan, W. (2015). The effects of online service quality of e-commerce Websites on user satisfaction. *The Electronic Library*, 33(3), 468–485. doi:10.1108/el-10-2013-0193
- Shiv, B., & Fedorikhin, A. (1999). Heart and mind in conflict: The interplay of affect and cognition in consumer decision making. *Journal of Consumer Research*, 26(3), 278–292.
- Soto-Acosta, P., Molina-Castillo, J. F., Lopez-Nicolas, C., & Colomo-Palacios, R. (2014). The effect of information overload and disorganisation on intention to purchase online. *Online Information Review*, 38(4), 543–561.
- Statista. The Statistic Portal. (2017). Digital buyer penetration worldwide from 2014 to 2019. Retrieved from February 7, 2017, from <https://www.statista.com/statistics/261676/digital-buyer-penetration-worldwide/>
- Torraco, J. C. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, 4(3), 356–367.
- Urueña, A., & Hidalgo, A. (2016). Successful loyalty in e-complaints: FsQCA and structural equation modeling analyses. *Journal of Business Research*, 69(4), 1384–1389.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13(3), 253–266.
- Vos, A., Marinagi, C., Trivellas, P., Eberhagen, N., Giannakopoulos, G., & Skourlas, C. (2014). Electronic service quality in online shopping and risk reduction strategies. *Journal of Systems and Information Technology*, 16(3), 170–186. doi:10.1108/jisit-01-2014-0008
- Wang, L. C., Baker, J., Wagner, J. A., & Wakefield, K. (2007). Can a retail web site be social? *Journal of Marketing*, 71(3), 143–157.
- Wang, Q., Yang, Y., Wang, Q., & Ma, Q. (2014). The effect of human image in B2C website design: an eye-tracking study. *Enterprise Information Systems*, 8(5), 582–605. doi:10.1080/17517575.2014.925585
- Wen, C., R. Prybutok, V., Blankson, C., & Fang, J. (2014). The role of e-quality within the consumer decision making process. *International Journal of Operations & Production Management*, 34(12), 1506–1536. doi:10.1108/ijopm-07-2013-0352
- Wu, C., Cheng, F., & Yen, D. C. (2008). The atmospheric factors of online storefront environment design: An empirical experiment in Taiwan. *Information & Management*, 45(7), 493–498.

- Wu, W., Chia-Ling, L., Chen-Su, F., & Hong-Chun, W. (2014). How can online store layout design and atmosphere influence consumer shopping intention on a website? *International Journal of Retail & Distribution Management*, 42(1), 4–24.
- Yao, C., & Liao, S. (2011). Measuring the antecedent effects of service cognition and internet shopping anxiety on consumer satisfaction with e-tailing service. *Management & Marketing*, 6(1), 59–78.
- Yen, Y.-S. (2014). The interaction effect on customer purchase intention in e-commerce. *Asia Pacific Journal of Marketing and Logistics*, 26(3), 472–493. doi:10.1108/apjml-07-2013-0080
- Yin, D., Bond, S. D., & Zhang, H. (2014). Anxious or angry? Effects of discrete emotions on the perceived helpfulness of online reviews. *MIS Quarterly*, 38(2), 539–560.
- Young, H., & Im, H. (2012). Role of web site design quality in satisfaction and word of mouth generation. *Journal of Service Management*, 23(1), 79–96. doi:10.1108/09564231211208989
- Yunfan, L., Yaobin, L., & Bin, W. (2012). Effects of dissatisfaction on customer repurchase decisions in e-commerce—an emotion-based perspective. *Journal of Electronic Commerce Research*, 13(3), 224–237.
- Zhang, H., Lu, Y., Gao, P., & Chen, Z. (2014a). Social shopping communities as an emerging business model of youth entrepreneurship: Exploring the effects of website characteristics. *International Journal of Technology Management*, 66(4), 319–345.
- Zhang, K. Z., Cheung, C. M., & Lee, M. K. (2014b). Examining the moderating effect of inconsistent reviews and its gender differences on consumers' online shopping decision. *International Journal of Information Management*, 34(2), 89–98. doi:10.1016/j.ijinfomgt.2013.12.001