

Sense and sensibility in personalized e-commerce: How emotions rebalance the purchase intentions of persuaded customers

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Abstract: This research develops and tests a theoretical model of customer persuasion in personalized online shopping, building on information processing theory, and addressing cognitive and affective stages of the persuasion process. Data from 582 experienced online customers were used to validate the proposed model through structural equation modeling and multi-group analysis. Results show that quality of personalization, message quality, and benefits of the personalized recommendations are important in the persuasion process. Positive emotions increase the effect of persuasion on purchase intentions, contrary to negative emotions. The study extends online personalization theory, offers an in-depth analysis of the persuasion process in online shopping, and provides valuable recommendations for personalized online marketing.

Keywords: online shopping, persuasion, personalization, emotions, information processing theory, intention to purchase

INTRODUCTION

Personalization may improve customers' lives while increasing their engagement and loyalty, as it delivers messages that are adjusted to their personal needs and anticipates their desires. Online retailers have been implementing various strategies to attract and retain customers, and offering personalized content is a primary indicator of a company's commitment to offer value on an individual basis (Adobe, 2015). Through personalization acquisition costs may be reduced by almost 50%, revenues may be increased by up to 15%, and the efficiency of marketing spend may be increased by up to 30% (Ariker, Heller, Diaz, & Perrey, 2015). However, this is an area where marketing practice is not at the same level as the available technical capability (Adobe, 2015). Online personalization is a strategy that may aid in convincing customers to select a product or service (Ho & Bodoff, 2014; Pappas, Kourouthanassis, Giannakos, & Chrissikopoulos, 2016) and may lead to persuasion. Through personalization, online retailers may use customers' personal data to offer custom-tailored messages. Tailored messages are considerably more efficient than one-size-fits-all marketing strategies (Noar, Benac, & Harris, 2007), and may increase the effectiveness of persuasive campaigns (Hirsh, Kang, & Bodenhausen, 2012). Currently, however, most persuasive technologies described in the research literature or implemented commercially are not personalizing their "ways." This is striking, since personalization of the end-goal is commonplace in commercial applications (Kaptein, Markopoulos, De Ruyter, & Aarts, 2015). Persuasive messages in online marketing are capable of changing users' attitudes and intentions (Chang, Yu, & Lu, 2015), and their efficiency is highly affected by individual differences (Haddock, Maio, Arnold, & Huskinson, 2008).

The attitudes and evaluations of an individual can be based on cognitive and affective experiences and they may affect persuasion, behavioral intentions, and ultimately choice (Darley, Blankson, & Luethge, 2010; Peck & Wiggins, 2006; See, Petty, & Fabrigar, 2008).

To increase its receptivity, a persuasive message may be cognitive or affect based, depending on the cognitive or affective needs of the individual (Haddock et al., 2008). Marketers use persuasive strategies based on interactive technologies in order to modify individuals' behavior (Berkovsky, Freyne, & Oinas-Kukkonen, 2012; Kaptein & Eckles, 2012; Oinas-Kukkonen & Harjuma, 2009). These strategies include rational persuasion, inspirational appeal, and consultation (Fu et al., 2004). In other words, in order to persuade their customers, businesses should adopt strategies that build on logical arguments, make emotional appeals, or request input or feedback from and for them. Thus, these strategies correspond to cognitive characteristics, affective characteristics, and interactive personalized messages, three categories that are inherent in the persuasion process (Cesario, Higgins, & Scholer, 2008). The purpose of this study is to develop a theoretical model of these three categories and their role in formulating purchase intentions.

Prior research does not provide a model of customer persuasion that takes into account both cognitive and affective perceptions, in order to explain customers' purchase intentions in personalized online shopping environments. Extant studies in the area of personalized online shopping focus on the cognitive part of the persuasion process and cover it in breadth by examining the components that affect the stages of the persuasion process (Ho & Bodoff, 2014; Kaptein et al., 2015; Tam & Ho, 2006). In detail, they build on information processing theory and propose cognitive-based models that examine individuals' attention, cognitive processing, decision, and evaluation. For example, Tam and Ho (2006) examine how much a user likes interactive personalized messages, while Ho and Bodoff (2014) focus on users' attitudes towards personalization agents. Furthermore, interactive and personalized messages may influence customers' affective responses (Pappas et al., 2016), as well as the persuasion process (Hsieh, Hsieh, Chiu, & Yang, 2014; Van Noort, Voorveld, & Van Reijmersdal, 2012). Online retailers may positively influence customers' attitudes to their company by

inducing positive feelings towards them (Holzwarth, Janiszewski, & Neumann, 2006). However, persuasive messages may have negative affective responses among customers (e.g., irritation, anger) and lead to message rejection (Holzwarth et al., 2006). Although *internal factors* (i.e., emotions) are of great importance in retailing and online shopping, their effect on persuasion, behavior, and purchase intentions remains understudied (Chen & Lee, 2008; Griskevicius, Shiota, & Neufeld, 2010; Griskevicius, Shiota, & Nowlis, 2010; Pappas, Kourouthanassis, Giannakos, & Chrissikopoulos, 2014). Previous studies point out the need to examine both types of emotions (i.e., positive and negative) together, since they coexist and may occur simultaneously (Barclay & Kiefer, 2014; Pappas et al., 2014, 2016). Thus, there is a critical need to complement previous studies by examining the persuasion process in depth, and by identifying pertinent factors for each step of that process in the context of online shopping.

This study builds on information processing theory and proposes a holistic framework of decision making in online shopping, based on customers' cognitive and affective perceptions when using personalized services. An integrative model is developed and tested where the purchase process is explained by examining cognitive and affective perceptions together, providing a more comprehensive understanding of the persuasion process. The novelty of this framework is that it incorporates persuasion as a separate factor in the purchase process, suggesting that it differs from intention to purchase, as a persuaded customer may not always proceed to a purchase. Another contribution is that it offers a two-step approach to explaining customer purchase intentions, first by examining how cognitive perceptions influence persuasion, and second by incorporating emotions as a moderating factor between persuasion and intention to purchase. The study contributes by identifying the factors that influence persuasion in the context of personalized online shopping, and their role and effectiveness at each stage of the persuasion process. Also, it examines any fluctuations in the relationship

between the outcome of the persuasion process and online purchase intentions, factoring in the role of both positive and negative emotions. Finally, the study contributes to the expansion of knowledge on emotions, as it takes a multi-dimensional approach by incorporating the distinct affective qualities of both positive and negative valence and control.

The clarification of these research areas is expected to contribute to the improvement of personalized online commerce through the identification and examination of the factors that comprise each step of the persuasion process. Furthermore, the role of persuasion in purchase intentions will be determined by pointing out the high importance of customers' emotions to the aforementioned relationship.

LITERATURE REVIEW

The Role of Persuasion in Online Shopping

Persuasion refers to activities, strategies, and tactics where people are convinced into believing that they will perform a certain task with success, such as completing an online purchase. Persuasion occurs when one's attitude changes, either from neutral to a particular attitude or from one attitude to a different one (Petty, Fabrigar, & Wegener, 2003).

Persuasion is everywhere in individuals' everyday lives, with advertising being its most common implementation. Consequently, theories of persuasion have played a pivotal role in marketing research, explaining and predicting customer behavior (Meyers-Levy & Malaviya, 1999).

Retailers' main goal is to convince customers to buy a product or service, and in order to achieve their goal they use different strategies and tactics. Previous studies focus on pricing tactics as persuasive strategies, examining the relation of such tactics with knowledge of persuasion (Kachersky, 2011; Pillai & Kumar, 2012). However, persuasive strategies involve

much more than pricing (Meyers-Levy & Malaviya, 1999). Furthermore, retailers use specific advertisements and persuasive messages to increase customer involvement and follow different marketing strategies, such as sending personalized messages to customers that have been created by other customers (Thompson & Malaviya, 2013). Nevertheless, such strategies lead to increased persuasion only under specific conditions (Thompson & Malaviya, 2013).

Extant research in the online shopping context aims to examine how customers process persuasive messages by segmenting them through different routes (Chen & Lee, 2008; Ho & Bodoff, 2014; Tam & Ho, 2005). Specifically, the effectiveness of persuasive messages is examined by using the Elaboration Likelihood Model (ELM; (Petty & Cacioppo, 2012), which is based on information processing theory. Through ELM and the implementation of different variables (e.g., personality traits, hedonic and utilitarian values, attitude to the website, mood), researchers aim to understand how persuasive messages are perceived and processed by customers (Chen & Lee, 2008; Martín, Camarero, & José, 2011; Putrevu, 2014). Similarly, Tam and Ho (2005) analyze persuasion through the lens of the ELM by examining customers' attention, information elaboration, and choice outcome, suggesting that persuasion may be explained by studying customers' behavior through the whole process of a purchase.

Although ELM frames how attitudes form and change, while taking into account factors such as mood and attractiveness, it neither examines persuasion as a separate factor nor counts the effect of emotions on customers' behavior. ELM demonstrates customers' cognitive responses to recommendations from personalized services, but not their affective responses to them. The latter present great interest to online retailers, who want to know how their customers feel in order to maximize those customers' satisfaction with their choices (Mosteller, Donthu, & Eroglu, 2014; Walsh, Shiu, Hassan, Michaelidou, & Beatty, 2011). To

account for this, regulatory focus theory is used (Higgins, 2000), which examines how a user behaves based on how he or she feels about a certain judgment.

The Role of Personalization in Persuasion

Personalization refers to offering customers specific content, based on their personal information, such as items purchased. Online personalization aims to convince users to perform a certain task, and past research focuses on examining this task through the investigation of behavior and intention to purchase (Ha, Muthaly, & Akamavi, 2010; Pappas et al., 2016; Thongpapanl & Ashraf, 2011). Furthermore, previous studies include persuasion in an attempt to explain how personalized services, through persuasive strategies, may modify customers' attitudes and behaviors (Tam & Ho, 2005). In particular, customers' personality is able to influence their shopping behavior (Anaza, 2014), and a message that is created for a specific customer, based on personality traits, is likely to be more effective and may lead to more successful persuasive strategies (Hirsh et al., 2012). Berkovsky et al. (2012) couple personalization and persuasion, and suggest that one affects the other and that together they may enhance their impact on user behavior. In addition, customers prefer quality to quantity when they receive recommendations through persuasion mechanisms (Lee & Kwon, 2008). This suggests that focus should be given to quality factors in online personalized shopping, such as information quality and perceived benefits, which will lead to increased persuasion and increased purchase intentions. Similarly, Yi and Gong (2013) posit that during the process of persuasion customers prefer interaction with familiar objects or parties, favoring high information quality, suggesting that the offer of specific personalized services that include increased benefits and information quality will lead to more efficient persuasion.

The Role of Emotions in the Relationship Between Persuasion and Purchase Intentions

The effectiveness of persuasion strategies is affected by emotions, which have been found to influence the process of persuasive messages (Griskevicius, Shiota, & Neufeld, 2010). In the absence of clear information that will help in making a choice, individuals turn to their emotions as a source of information (DeSteno, Petty, Rucker, Wegener, & Braverman, 2004). Regarding user persuasion, information processing is related to arousal; in particular, increased arousal leads to more impulsive decisions, made in a shallow manner and based on mental shortcuts (Verhagen & van Dolen, 2011).

The relation between types of emotions (e.g., anger, pleasure) and intention to purchase has been studied in the past (Koo & Ju, 2010; Pappas et al., 2014; Verhagen & van Dolen, 2011). However, only in a few studies are emotions considered as a whole (Pappas et al., 2016). Here, examining emotions as a whole means including together distinct emotions of both positive and negative valence and control (Scherer, Shuman, Fontaine, & Soriano, 2013). The two main types of emotions (positive and negative) are correlated (Chang, Lv, Chou, He, & Song, 2014) and are likely to exist simultaneously in customers. However, although positive and negative emotions are interrelated, their relationship is not proportional and an increase in one does not imply a reduction of the other.

Someone might simultaneously experience both positive and negative emotions in the same situation, but for different reasons. Pappas et al. (2014), who examine the effects of personalized services in online shopping, have found that positive emotions increase intention to purchase while negative emotions reduce it. Moreover, they posit that positive and negative emotions are interdependent, and that the intensity of one may affect the intensity of the other. However, Pappas et al. (2014) suggest that different aspects of emotions, based on distinct emotions, should be examined. In addition, previous studies have

found that different positive emotions may either increase or decrease the effectiveness of persuasion messages (Griskevicius, Shiota, & Neufeld, 2010), and that the effectiveness of persuasion depends on whether the context elicits positive or negative effects (Griskevicius et al., 2009). Therefore, a more comprehensive assessment of emotions is essential, since emotions are a multidimensional concept comprising diverse characteristics. The effect of customers' emotions is expected to be important in the relation of persuasion with purchase intentions.

CONCEPTUAL FRAMEWORK AND RESEARCH MODEL

The proposed research model builds on the prescriptions of information processing theory, which posits that the impact of a persuasive message is subject to a series of cognitive, sequential tasks that follow the initial exposure of the individual to the persuasive message. These tasks include the attention effect of the message, followed by cognitive processing of the message, and resulting in a judgmental evaluation that accepts or dismisses the message (McGuire, 1968). The theory has been successfully applied in the context of web personalization and persuasion by previous studies (Tam & Ho, 2005, 2006), therefore it represents a suitable core on which to ground the theoretical propositions.

The conceptual model includes three building blocks of web personalization strategies that are hypothesized to influence persuasion in the context of online retailing. The first component recognizes the importance of the communication method that is employed in order to reach the user. Optimal communication of the message would draw the attention of the user to the persuasion message and trigger its cognitive processing. In the context of online services, the quality of the communication, or the *message route* as coined by Oinas-Kukkonen and Harjumaa (2009), will influence how users perceive the personalized message and its intended benefits; an increased relevance of the personalized content will yield

positive attitudes towards the message and the overall effectiveness of the personalization strategy (Hirsh et al., 2012; Kalyanaraman & Sundar, 2006). The latter components characterize the cornerstones of the cognitive evaluation process: users who are exposed to a specific personalization strategy would formulate an opinion and act accordingly, after evaluating the personalized message and relating that message to a desired performance (e.g., purchasing a product that fits their current needs). Extant studies on persuasion have reported a positive association between the quality of the message and the persuasion effect (Cesario et al., 2008; Petty & Cacioppo, 2012). Likewise, effective online personalization strategies are likely to lead to persuasion (Oinas-Kukkonen & Harjuma, 2009).

Information processing theory has been developed to account for judgment changes in response to rational cues. Nevertheless, individuals rarely base their persuasion only on rationality. Instead, scholars report that affective qualities, in the form of discrete positive or negative emotions, influence the degree and quality of persuasion (DeSteno et al., 2004; Griskevicius, Shiota, & Neufeld, 2010; Petty et al., 2003). This research posits that emotions will influence the relationship between the outcome of the personalization strategy (i.e., the persuasion effect) and the formulation of purchase intentions based on the persuasion judgment. The study is grounded on regulatory fit theory, which is a widely applied method used to increase the effectiveness of persuasive strategies that attempt to influence attitudes and behavior (Cesario et al., 2008; Kim & Sung, 2013).

Regulatory fit theory investigates one's motivational orientation and the manner in which one pursues a certain goal (Higgins, 2000, 2005). People experience regulatory fit when their strategies for goal pursuit match their regulatory orientation (Higgins, 2006). In detail, those with a promotion focus will adopt eagerness strategies to pursue their goal, whereas those with a prevention focus will adopt vigilance strategies. People become more engaged and feel

right about their reactions when they experience regulatory fit. In turn, these subjective experiences influence their judgments (Lee, Keller, & Sternthal, 2010).

Persuasive strategies present to users specific means that will help them achieve their goals (Cesario, Grant, & Higgins, 2004). For example, promotional messages are more effective and persuasive when they fit customers' regulatory focus (Lee & Aaker, 2004) and when the type of message matches customers' mental representation of information processing, such as in personalized advertising (Thompson & Hamilton, 2006). In addition, Cesario et al. (2004) observed that positive thoughts lead to more favorable evaluations, whereas negative thoughts lead to more unfavorable evaluations when participants are presented with a message that fits.

Figure 1 presents the conceptual framework of the study.

[Insert Figure 1 about here]

Quality of Personalization

Personalized services give exclusive treatment to their users; through the unique information they offer, they make users feel "closer" to the services provided (Kim & Ammeter, 2014). Personalized services offer useful information to customers (Shang, Chen, & Shen, 2005), and as result it is very likely that the customers will perceive that the information transferred is of high quality. The quality of a message may be of great importance when the message is personalized (Hirsh et al., 2012). Offers and feeds from personalization and recommendation agents are expected to increase perceived information quality, as opposed to simple informative messages (Xu, Benbasat, & Cenfetelli, 2013).

Therefore, it is proposed that:

H1: Quality of personalization has a positive effect on message quality.

During the development of persuasive messages, it is essential to determine what benefits to offer to customers and how to correspond to them (Lee et al., 2010). Customers are likely

to prefer online shopping due to its benefits, such as convenience, time, and cost savings. Personalization is efficient when such services are built on customers' needs, interests, online activity, and the time of day (Xu, Luo, Carroll, & Rosson, 2011). As a consequence, the implementation of personalized services in online shopping will provide gains for customers related to convenience, product variety, and pricing (Shang et al., 2005). Hence, it is proposed that:

H2: Quality of personalization has a positive effect on benefits of personalization.

The increased efficiency of personalized services is assumed to lead to increased customer persuasion and is likely to provide gains for both customers and retailers. Previous studies on innovation adoption suggest that perceptions of relative advantage are associated with the adoption of Internet-related technology (Chen, Gillenson, & Sherrell, 2002), such as personalized services. Employing specific techniques to make online shopping more personal leads to increased satisfaction with the retailer, a more positive attitude towards the product, and a greater purchase intention (Holzwarth et al., 2006). Consumers are aided in their shopping experience by the accessibility of knowledge of retail choices that are particularly relevant to their needs or preferences. For example, third-party cookies enable online third-party advertisers to more precisely follow online behavior across affiliated sites and to provide personalized advertisements (Jai, Burns, & King, 2013). Hence, personalized services are optimal for retailers to be used as a medium in order to offer contextualization value and satisfy customers' needs. Thus, it is proposed that:

H3: Quality of personalization has a positive effect on persuasion.

Message Quality

Information quality in online shopping is consumers' general perception of the accuracy and completeness of website information as it relates to products and transactions (Yi &

Gong, 2013). Acquiring high-quality information is crucial for decision makers, including potential buyers (Miranda & Saunders, 2003). In the context of online services, information quality is an antecedent of customers' overall evaluation of such services and of customers' online behavior (Setia, Venkatesh, & Joglekar, 2013). Therefore, it is hypothesized that:

H4: Message quality has a positive effect on persuasion.

Benefits of Personalization

Online shopping benefits are consumers' perception of gains and advantages (Forsythe, Liu, Shannon, & Gardner, 2006). Previous research has found that perceived benefits from using online services will positively affect attitudes and intentions (Lee, 2009). The competence to obtain more value from shopping when it is done online is an important reason for customers to prefer it (Forsythe et al., 2006), suggesting that the increased value which derives from perceived benefits will in turn affect customers' behavior. Taking into account that perceived benefits of online shopping are antecedents of individual adoption and customers' online shopping behavior, their effectiveness on persuasion may be determined. Therefore, it is proposed that:

H5: Benefits of personalization have a positive effect on persuasion.

Persuasion

According to information processing theory, each user may process the received information differently, according to their ability to process an argument, hence the effects of such information on attitude and behavior are likely to differ for each user. Furthermore, ELM suggests that based on how people think, process, and elaborate information, different factors will persuade them and lead them to a specific outcome. Based on regulatory fit theory, when users feel right about what they are doing when pursuing a goal, value from fit

is created, which can be transferred, for example, to evaluations of attitudes. Consequently, receiving persuasive messages through personalized services, which involve a goal to be attained, will make a customer feel right, otherwise they would not be using such services, and this is likely to affect their attitudes, behavior, and purchase intentions. Nonetheless, previous studies examining the role of persuasion in shopping behaviors focus on its outcomes in behavior rather than persuasion itself (Ho & Bodoff, 2014; Lee et al., 2010; Thompson & Malaviya, 2013), suggesting that persuasion as a distinct factor needs further investigation. The implementation of specific types of persuasion agents has been found to increase customers' satisfaction with the retailer, their attitude towards products, and their purchase intentions (Holzwarth et al., 2006). Consequently, it is proposed that:

H6: Persuasion has a positive effect on intention to purchase.

The Key Role of Emotions

Shopping online creates diverse emotions for customers, which affect their behavior. Previous research has demonstrated the relationship between customers' emotions and their purchase behavior when using personalized services (Pappas et al., 2014). In detail, positive emotions increase intention to purchase, while negative emotions decrease it. Additionally, positive emotions mediate the effect of personalized services on intention to purchase. Online personalization may be used as a persuasion strategy that will lead to attitude change and influence users' behavior (Tam & Ho, 2005). There are multiple factors that may affect customers' behavior when attempting to engage them in an online process (e.g., using personalized services and adopting persuasive strategies), thus creating a positive or negative experience for them. Users with negative reactions to a persuasive message feel even more negatively, under certain conditions, towards the received message (Cesario et al., 2004). Customers' emotional state is affected by both negative and positive emotions. Therefore,

this study aims to examine how the two basic types of emotions, based on their different levels of intensity, influence the effect of persuasion on customers' intention to purchase.

Thus, it is proposed that:

H7a: Customers' positive emotions have a moderating effect on the relationship between persuasion and intention to purchase.

H7b: Customers' negative emotions have a moderating effect on the relationship between persuasion and intention to purchase.

Figure 2a presents the research model.

[Insert Figure 2a about here]

METHOD

Data Collection

The survey was conducted in March–April 2014. A snowball sampling methodology was used to recruit participants. This method may be used to access a sample within a population that is difficult to identify, as the sample is created through referrals made among people who share or know others with the same characteristics (Biernacki & Waldorf, 1981). This method is suitable due to the low adoption of online shopping in Greece, since it gives the opportunity to contact customers with previous experience of personalized online shopping. E-commerce adoption in Greece is among the lowest of the European Union (EU) member states, deviating by 24% from the EU average (Eurostat, 2014). The research instrument controls the prospective participants for their experience with both online shopping and personalized information services. The researchers contacted people with established experience in online shopping and personalized services (e.g., e-business consultants, personal contact list, graduates, etc.). Similarly, the latter turned to their personal or business contacts (e.g., friends, relatives, colleagues, etc.) with established online experience. The participants were asked to answer based on evaluations created after using or receiving

personalized services in the online shopping industry. It was made clear that there was no reward for the respondents, that participation was voluntary, and that the study was confidential. Data were collected by means of an online questionnaire. First, a few examples of personalized online services were presented, followed by questions regarding respondents' experience with personalized services and online shopping. Respondents with no previous experience with personalized services and online shopping were excluded from participating in the remainder of the study. Finally, 723 responses were collected, out of which 582 had previous experience with online shopping and personalized services.

The sample of respondents consists of about equal numbers of men (45.7%) and women (54.3%). The vast majority of the respondents (77.3%) were holders of a bachelor's degree or higher education. Furthermore, over 60% of the sample belonged to the age group 22–34 years. According to the latest study from the Hellenic Statistical Authority (2015) that profiles Greek shoppers conducting online purchases, almost half of users who actively use the Internet to purchase products and services belong to the age group of 16–34 years. The sample approximates this distribution, although a minor skew towards younger ages is acknowledged. Finally, almost 25% of the sample were 35 years old or older. Hence, the sample is considered as representative of the Greek e-commerce users' population.

Measures

The questionnaire consisted of two parts. The first part included questions on the demographics of the sample (age, gender, education). The second part included measures of the various constructs identified in the literature review section. For testing the hypotheses, the survey included reflective scales for the constructs of the conceptual model. Table 1 lists the operational definitions of the constructs in this theoretical model as well as the studies from which the measures were adopted. A 7-point Likert scale anchored from 1 (“completely disagree”) to 7 (“completely agree”) was employed. Regarding emotions, the work of Scherer

et al. (2013) was adopted, who attempt to understand the semantics of emotions. In this study emotions were divided based on valence, following the work of Scherer et al. (2013), and verified with an exploratory factor analysis into positive and negative emotions. Next, based on a median split, two groups of high and low intensity were created for both positive and negative emotions. The appendix lists the questionnaire items used to measure each construct, along with descriptive statistics and loadings.

[Insert Table 1 about here]

DATA ANALYSIS

Reliability and Validity

The constructs used in this research were evaluated in terms of reliability and validity. Reliability was tested with the use of the Cronbach's alpha indicator, which is required to be higher than 0.7 for every factor. Validation analysis consists of convergent and discriminant validity. Establishing validity requires that average variance extracted (AVE) is greater than 0.50, that the correlation between the different variables in the confirmatory models does not exceed 0.8 points, as this suggests low discrimination, and that the square root of each factor's AVE is larger than its correlations with other factors (Fornell & Larcker, 1981). Further, multicollinearity issues (O'brien, 2007) were examined along with the potential common method bias by utilizing the common latent factor technique and the CFA marker variable technique, which are better than other control procedures (e.g., Harman's single-factor test); (MacKenzie & Podsakoff, 2012; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Goodness of fit describes how well the model fits its data. Here, several fit indices were used to assess model-data fit. The chi-square statistic is sensitive to sample size, and is expected to be above the recommended value of 3 because of the large sample of this study. However, it is a global statistic, hence it is used in this study. Root mean square error of

approximation (RMSEA), comparative fit index (CFI), and normed fit index (NFI) values were all used to evaluate model–data fit (Byrne, 2016). A RMSEA less than 0.05 suggests good model–data fit; between 0.05 and 0.08 it suggests reasonable model–data fit; and between 0.08 and 0.1 suggests acceptable model–data fit. CFI indices greater than 0.90 suggest good model–data fit and greater than 0.80 suggest adequate model–data fit. An χ^2/df ratio of less than 3 is acceptable.

Multi-Group Analysis (Invariance Analysis)

When analysis involves more than one sample, the model needs to be tested for invariance across groups. In other words, whether components of the measurement and structural model are equivalent across particular groups of interest must be examined. Prior to invariance testing, each group was assessed using a goodness-of-fit test. Invariance of the components is highly important. Unless it is proved, the examination of the structural model has no value. Also, if invariance cannot be proved for the structural model, path differences should be examined in order to find which ones differ among the groups (Byrne, 2016). The multi-group analysis extends the generalizability of the measurement items, it directly compares the structural weights by using equivalent measurements, and it is more appropriate than an analysis of covariance when the samples in each group exceed the minimum of 100 (Deng, Doll, Hendrickson, & Scazzero, 2005).

The data are divided into two groups based on the respondents' level of emotion intensity by performing a median split for positive and negative emotions, since this may provide greater parsimony. Following the suggestions of Iacobucci, Posavac, Kardes, Schneider, and Popovich (2015) for the examination of group differences, a median split may be performed, as long as there is no multicollinearity among the variables. Furthermore, the authors validate that splitting the sample based on the median of the moderating variable produces the same results as treating the moderating variable as a continuous one. To this end, the variance

inflation factor (VIF) for each variable is below the value of 3, indicating that multicollinearity is not an issue (O'Brien, 2007). For positive emotions the median of the sample is 3.44, thus creating the low and high positive emotions groups. The low positive emotions group consists of 275 respondents, with the remaining 307 comprising the high positive emotions group. Similarly, for negative emotions the median of the sample is 2.19, thus creating the low and high negative emotions groups. The low negative emotions group consists of 259 respondents, with the remaining 323 comprising the high negative emotions group.

The next step was to estimate the effect of personalization, information quality and perceived benefits on persuasion, the direct effect of persuasion on customers' intention to purchase, and the moderating effect of emotions on the relationship between persuasion and intention to purchase, by means of a multi-group structural equation modeling (SEM) analysis. Multi-group analysis was performed with the use of the standard SEM software AMOS Version 18.0.

RESULTS

Direct and Indirect Effects

First, an analysis of reliability and validity was carried out. Reliability testing, based on the Cronbach's alpha indicator, shows acceptable indices of internal consistency, since all constructs exceed the cut-off threshold of 0.70. The AVE for all constructs ranges between 0.57 and 0.76, exceeding the cut-off threshold of 0.50. Finally, all correlations are lower than 0.80, and square root AVEs for all constructs are larger than their correlations. The findings are illustrated in Table 2.

[Insert Table 2 about here]

As already mentioned, multicollinearity is not an issue in this study. Further, the results

suggest that common method bias is not a problem, since variance from the common latent factor technique and the CFA marker variable technique is 0.08 and 0.21, respectively (Podsakoff et al., 2003). Next the fit indices of the research model were examined. All values are within the recommended range. Specifically, χ^2/df : 3.76, NFI: 0.92, CFI: 0.94, and RMSEA: 0.06.

The estimated path coefficients of the structural model were examined in order to evaluate the hypotheses. All direct relations are significant. Specifically, quality of personalization has a positive effect on message quality, benefits of personalization, and persuasion, supporting H1–H3. Also, both message quality and benefits of personalization have a positive effect on persuasion, supporting H4 and H5. Finally, persuasion positively affects customers' intention to purchase, supporting H6. Square multiple correlations (R^2) are presented in Figure 2b as well. The R^2 for message quality is 0.34, for benefits of personalization is 0.39, for persuasion is 0.68, and for intention to purchase is 0.64. Values higher than 0.26 imply a high effect of the predictors of the aforementioned factors.

Regarding the mediating effects of message quality and benefits of personalization on the relation between quality of personalization and persuasion, the bootstrap estimation procedure in AMOS was used. This method is the most accurate for computing confidence intervals for indirect effects (MacKinnon, Lockwood, & Williams, 2004). The indirect effect of quality of personalization on persuasion is estimated to be 0.29 ($p < 0.05$). The lower and upper bounds of the estimate are 0.22 and 0.37, respectively, with 95% confidence. Since there is no overlap with zero in the 95% confidence interval, the indirect effect is significant at $p < 0.05$.

Multi-Group Analysis

Before testing for invariance, goodness of fit is examined for each group, suggesting acceptable model fit. Specifically, the indices for the group with low positive emotions were

χ^2/df : 2.24, CFI: 0.92, RMSEA: 0.08, and for the group with high positive emotions were χ^2/df : 2.24, CFI: 0.92, RMSEA: 0.08. Next, indices for the group with low negative emotions were χ^2/df : 2.24, CFI: 0.92, RMSEA: 0.08, and for the group with high negative emotions were χ^2/df : 2.24, CFI: 0.92, RMSEA: 0.08.

For the positive emotions, comparing the measurement model with the unconstrained one proves the group equivalence. Specifically, as Table 3 demonstrates, the p-value is non-significant with $\Delta\chi^2(17)$: 16.26 (Byrne, 2016). Hence, the examination of the equivalence among the structural weights follows. Unlike the measurement model, the structural model has a significant p-value with $\Delta\chi^2(6)$: 23.84 (Table 3). Consequently, testing for path differences in the model was possible.

[Insert Table 3 about here]

Similarly, for the negative emotions, comparing the measurement model with the unconstrained one proves the group equivalence. As Table 4 demonstrates, the p-value is non-significant with $\Delta\chi^2(17)$: 21.84 (Byrne, 2016). Hence, the examination of the equivalence among the structural weights follows. The structural model has also a non-significant p-value with $\Delta\chi^2(6)$: 9.13 (Table 4). Testing for path differences in the model is not possible, thus negative emotions have no moderating effect on the relation between persuasion and intention to purchase, rejecting H7b.

[Insert Table 4 about here]

The moderating effect of positive emotions in the proposed model is estimated through a multi-group analysis. Table 5 presents the results. Testing for differences for the effect of persuasion on intention to purchase, based on positive emotions, is achieved by doing a pairwise comparison of the coefficients, using the critical ratios for differences on AMOS. Significant group differences were found between customers with low positive emotions and customers with high positive emotions, providing support for H7a.

[Insert Table 5 about here]

Figure 2b presents the analysis of the research model, including both direct effects and the multi-group analysis.

[Insert Figure 2b about here]

DISCUSSION

The goal of this study is to investigate the dynamics of the persuasion process in online shopping; this study is of particular importance since it is one of the first to examine persuasion as a distinct factor, under the scope of personalized services, while at the same time taking into account the role of emotions in the formulation of online purchase intentions. To this end, a conceptual model was constructed that features the role of persuasion in online shopping along with its antecedents, and extended with the inclusion of individuals' emotions towards online shopping. From a theoretical stance, this research builds on the prescriptions of information processing theory and explains the persuasion process in online retailing settings through the lenses of cognitive and affective decision making. Specifically, this study complements extant research that investigates web-based personalization and persuasion [e.g., (Tam & Ho, 2005)] by providing a detailed view of the online persuasion process and pinpointing factors that ultimately influence the persuasion effect of a personalized recommendation. To the best of our knowledge, this is the first study that proposes and empirically validates pertinent factors that explain each step of the online persuasion process.

In summary, prior research acknowledges that persuading customers plays a pivotal role in the adoption of personalized services and the increase of purchase intentions, and builds on information processing theory and ELM (Tam & Ho, 2005, 2006) to examine the role of cognitive responses in customer behavior. Nonetheless, neither is the role of affective responses taken into account, nor is persuasion differentiated from behavioral intentions. Furthermore, the adoption literature on online shopping has widely relied upon the

Technology Acceptance Model (TAM; (Davis, 1989) and the Unified Theory of Acceptance and Use of Technology (UTAUT; (Venkatesh, Morris, Davis, & Davis, 2003), which explain a large degree of the variance in users' intentions, but do not reach into the dynamics of the persuasion process (Bhattacharjee & Sanford, 2006), thus offering limited understanding of the complex factors that may lead to persuaded users. To overcome this limitation, previous studies have integrated TAM with ELM in order to investigate users' adoption of technology artifacts (Angst & Agarwal, 2009; Bhattacharjee & Sanford, 2006). This study addresses the above gaps in the ELM, TAM, and UTAUT literature by refining the persuasion process into two steps, explaining which factors will increase customer persuasion, how emotions may regulate the influence of persuasion on intention to purchase, and presenting a useful theoretical model that can serve as the basis for further exploration of the role of cognitive and affective characteristics in the persuasion process when using personalized services.

The findings illustrate that quality of personalization in online shopping increases customers' persuasion, message quality, and benefits of personalization, indicating that quality of personalization remains a predictor of persuasion and that the implementation of personalized services is a considerably more effective persuasion strategy than mass advertising. This research extends and complements recent work suggesting that personalization and persuasion are related and should be studied together, although without testing this suggestion (Berkovsky et al., 2012), and is consistent with related studies based on which tailoring a message to someone's personality might increase the efficiency of persuasive campaigns (Hirsh et al., 2012; Noar et al., 2007), while it contradicts recent findings showing that personalized communication will have a negative effect on utilitarian attitudinal aspects (Steinmann, Mau, & Schramm-Klein, 2015). Furthermore, it was confirmed that by using such services, customers' expectations of message quality and benefits of personalization will be higher, because their adoption implies sharing their

personal and private data. To this extent, both message quality and benefits of personalization have a positive effect on customers' persuasion. However, the effect of benefits of personalization on persuasion is almost three times higher than that of message quality. Interestingly, the direct effects of the quality of personalization on persuasion are stronger than the indirect effects through the cognitive processing variables (i.e., message quality and perceived benefits). This paves the ground for scholars to revisit cognitive-based theories of persuasion in online retailing. Emerging theories may focus on elaborating the attention stage of the online persuasion process in order to explain the increased importance of this stage in the context of online retailing. Scholars may apply the theoretical propositions to other information systems, which involve online transactions or information exchange (e.g., e-government) to extend the generalizability of the results.

Second, persuasion has a positive effect on customers' intention to purchase online. This was expected, since persuasion is defined as the capability of a website to convince and influence using personalized services and to hook interested customers. Consequently, receiving tailored messages that increase customers' persuasion and services' effectiveness will eventually increase customers' intention to purchase online. These findings are in accordance with past studies (Lee et al., 2010; Tam & Ho, 2005) which indicate the importance of persuasive strategies, as these may entail both cognitive and affective appraisals that affect users' behavior, although without examining persuasion as a separate factor. This study contributes by addressing this gap, since the findings show that, although persuasion is a strong predictor of purchase intentions, these should be studied as standalone factors, because a persuaded customer may not always have high purchase intentions. Indeed, other factors may influence purchase intentions, and they should be examined to explain a larger amount of the variance of purchase intentions.

The outcome of persuasive strategies differs as it is based on positive and negative affects (Griskevicius et al., 2009), and the effect of persuasion on intention to purchase differs when customers' emotions change. Past research on the role of emotions on the persuasion process has examined only specific types of emotions in a unidimensional manner (Griskevicius, Shiota, & Neufeld, 2010). This study relates two different categories of emotions based on valence (i.e., positive and negative), each separated into two groups based on intensity (i.e., high and low). Studying emotions in a multi-dimensional way in this model provides an enriched explanation of their role in online shopping, and extends recent studies (Pappas et al., 2014) to address questions about the understanding of customers' emotions when using personalized services. Since customers may experience both positive and negative emotions when using online shopping services (Kuo & Wu, 2012), how the effect of persuasion on intention to purchase is affected by a shift of customers' positive or negative emotions is examined. The empirical results show that when customers feel negative emotions, the effect of persuasion on their intention to shop online will remain the same. On the other hand, when customers feel positive emotions, the effect of persuasion (and persuasion strategies that are effected by personalization) on their intention to shop online will be increased or decreased accordingly. These findings, combined with the fact that only positive emotions, and not negative ones, directly influence customers' purchase intentions when using personalized services (Pappas et al., 2014), indicate that positive and negative emotions may occur at different stages of the persuasion process. Indeed, customers may experience different emotions based on their expectations (Aurier & Guintcheva, 2014); although both types of emotions should be examined together, their role may differ if a customer is at the attention or at the judgment stage, depending on what information one gets and how one processes it. Based on the previous discussion and on the fact that information processing theory was developed to account for judgment changes in response to rational cues, the findings here

point towards the need to create models that will account for both rational and emotional cues.

Practical and Managerial Implications

The findings of this research may be employed by online retailers to streamline their personalization services in order to increase the persuasion effects of personalization strategies and increase the likelihood that such services will lead to eventual sales. In effect, this study provides empirical support that personalized strategies should follow a two-stage implementation. The first stage should be orchestrated around fortification of the rational dimension of the persuasion-building process. The second stage should address the affective qualities that stem from rationally driven judgments in terms of reinforcing the positive emotions from successful persuasive actions.

Specifically, the current study confirmed that online shoppers are persuaded through the triptych of personalization quality, persuasion message quality, and benefits of the persuasion process outcome. Controlling all three factors is a challenging task for online retailers, who need to continuously improve the accuracy of personalized recommendations. To do so, retailers may employ a variety of information technology tools, ranging from text mining of user reviews from confirmed buyers (Ganu, Kakodkar, & Marian, 2013) to implementing collaborative filtering and/or sequential pattern analysis of user ratings (Choi, Yoo, Kim, & Suh, 2012) and session-based recommendations based on users' browsing/navigation history (Matthijs & Radlinski, 2011). Along these lines, retailers need to include feedback mechanisms in order to identify possible deviations between actual user needs and the accuracy of the personalized recommendation. For example, the e-shop might ask the shopper to rate whether the recommendation matches his/her preferences (either through a binary response model or using a scale) and utilize this response to improve the personalization process.

Moreover, this study highlighted the importance of positive emotions in strengthening the relationship between persuasion and intention to purchase. This indicates that online retailers should strive to evoke, and subsequently maintain, feelings of joy, surprise, and excitement as a result of the personalization process. There are two benefits of achieving that goal. On the one hand, positive emotions may rebalance wavering shopping intentions towards the actual purchase. On the other hand, such feelings may influence e-shoppers to perform unplanned, or impulsive, purchases. Interestingly, both arguments are supported by offline retailing literature (Beatty & Elizabeth Ferrell, 1998; Wang, Minor, & Wei, 2011). Online retailers may artificially induce positive emotions by following emotional contagion strategies; online emotional contagion received increased attention recently through an experiment performed on Facebook, which showcased that feelings may be spread between users of social media through manipulation of the emotional content of users' news feeds (Coviello et al., 2014). Online shops may employ a similar strategy; specifically, they can notify all visitors about successful recommendations through short personalized messages. Such a message would indicate that another shopper found the product when she was searching and that she was happy with the purchase she made.

Lastly, in line with current thinking on the online economy, this research suggests that firms equipped with appropriate persuasive strategies should also incorporate strategies for customers' emotional engagement (not only rational/active elements). Aspects such as trusting and defending the brand (for example, on Facebook), the associated enjoyment of owning and using the product or service, the feel-good factor associated with interacting with the organization, or the empathy customers have for the company (for example, due to its green focus) are of tremendous importance for an online retailer.

Limitations and Future Work

As with any empirical study, there are some limitations. First, the major limitation is its sample, which included mostly Greek online shopping customers. Since this limits the external validity, future studies should examine the proposed model with samples from different countries to enrich the cross-cultural e-commerce literature, as the impact of personalization and emotions on the persuasion process may be influenced by culture. Nonetheless, prior research shows that the Greek market has various similarities to markets from the Mediterranean region, one of the most historical areas on the planet and the cradle of modern civilization, as they share similar characteristics in terms of lifestyle, culture, and e-commerce adoption (Pappas, Kourouthanassis, Giannakos, & Lekakos, 2017; Turk, Blažič, & Trkman, 2008), adding to the generalizability of the findings. In this direction, two special issues (Loukis, Ferro, & Arvanitis, 2017; Pateli, 2011) have been dedicated to digital technologies and e-business in the Mediterranean region, which in terms of population is almost half of the population of the EU (Eurostat, 2012). Having said that, empirical results representing the situation in the Mediterranean region are of particular importance for the EU, but also for western societies as a whole. Second, the findings are based on self-reported data; other methods such as in-depth interviews and observations could provide a complementary picture of the findings. Lastly, we control for personalization by giving various specific examples to the respondents about what personalized services might be; future studies might include, for example, a question with multiple answers that would ask the respondents what they think that personalized services include. This would help create a sample that would definitely be aware of personalized services. Also, since we consider only the impact of personalization, future studies could compare this with customers' attitudes and intentions when receiving non-personalized communication (Steinmann et al., 2015), to identify the type of products and services for which personalization is more appropriate than

non-personalization. This will also help practitioners design their persuasion strategies depending on the type of service or product they offer.

Future researchers are encouraged to investigate more detailed aspects of emotions, especially the relation of emotions to different online shopping media and strategies, and the role of emotions in retaining a customer or even attaining a new one. Future research should also examine what aspects of the persuasion process may induce specific types of emotions in order to invoke positive or hinder negative emotions. It may be argued that customers cannot remember all the emotions they felt while receiving personalized services. However, respondents are more likely to remember those emotions that were more intense for them, thus increasing the need to examine emotions as a multi-dimensional factor. Moreover, future studies should also consider other methods of capturing emotions, such as with mouse clicking patterns or eye tracking methods. Finally, studies could also incorporate the anticipated emotions that might motivate purchase intentions (Bagozzi, Belanche, Casaló, & Flavián, 2016), in order to provide deeper insight on how customers feel during the persuasion process.

Table 1. Construct Definition

Construct	Operational Definition	Source
Quality of Personalization	Tailoring content and services to match the buyer's personal interests or preferences.	Pappas et al. (2014)
Message Quality	Customer's general perception of the accuracy and completeness of website information as it relates to products and transactions, when using personalized services.	Kim and John (2008)
Benefits of Personalization	Customer's belief about the extent to which he or she will become better off from the online transaction with a certain website, when using personalized services.	
Persuasion	Customer's perceptions about how persuasive and convincing the personalized service is.	Cesario et al. (2004)
Emotions	Measuring customer's emotions, based on valence, when using personalized services.	Scherer et al. (2013)
Intention to Purchase	Customer's intention to shop online based on personalized services.	Pappas et al. (2014)

Table 2. Descriptive Statistics and Correlations of Latent Variables

				Construct				
Construct	Mean (SD)	CR	AVE	Quality of Personalization	Message Quality	Benefits of Personalization	Persuasion	Intention to Purchase
Quality of Personalization	4.58 (1.24)	0.89	0.73	0.85				
Message Quality	4.41 (1.13)	0.93	0.65	0.54	0.81			
Benefits of Personalization	4.91 (1.31)	0.90	0.66	0.56	0.73	0.81		
Persuasion	4.32 (1.14)	0.84	0.57	0.60	0.52	0.58	0.75	
Intention to Purchase	4.45 (1.35)	0.90	0.76	0.61	0.57	0.65	0.62	0.87

Note: Diagonal elements (in bold) are the square root of the average variance extracted (AVE). Off-diagonal elements are the correlations among constructs (all correlations are significant, $p < 0.01$). For discriminant validity, diagonal elements should be larger than off-diagonal elements.

Table 3. Invariance Testing for Positive Emotions

Summary of Goodness-of-Fit Indices				
Model	df	χ^2	RMSEA	CFI
Unconstrained Model	402	1092.55	.05	.93
Measurement Weights	419	1108.81	.05	.93
Structural Weights	408	1116.39	.05	.92
Differential Goodness-of-Fit Indices				
Model Comparisons	df	χ^2 diff ($\Delta\chi^2$)		P-value
Measurement Weights	17	16.26		Non-significant
Structural Weights	6	23.84		0.001

Table 4. Invariance Testing for Negative Emotions

Summary of Goodness-of-Fit Indices				
Model	df	χ^2	RMSEA	CFI
Unconstrained Model	402	1121.46	.05	.93
Measurement Weights	419	1143.29	.05	.93
Structural Weights	408	1130.59	.05	.93
Differential Goodness-of-Fit Indices				
Model Comparisons	df	χ^2 diff ($\Delta\chi^2$)		P-value
Measurement Weights	17	21.84		Non-significant
Structural Weights	6	9.13		Non-significant

Table 5. Multi-group Analysis

Intention to Purchase				
	Emotions		Group Difference	Hypotheses
Persuasion	Low Positive Emotions	High Positive Emotions	p < 0.05	Accepted (H7a)
		.73*** (R ² =.54)		
Goodness of Fit	x ² (df): 2.71; CFI: 0.93; RMSEA: 0.05			
	*** p < .001			

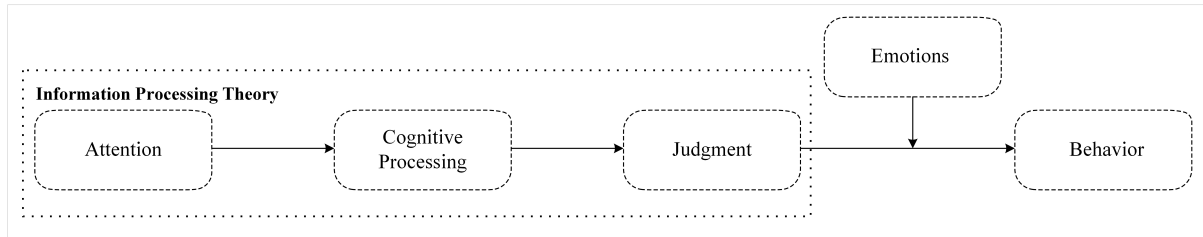


Figure 1. Proposed Conceptual Framework

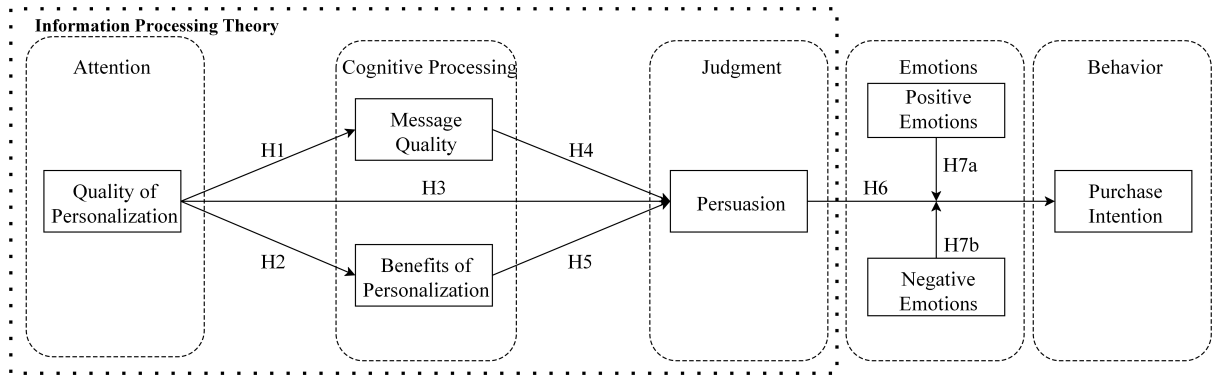
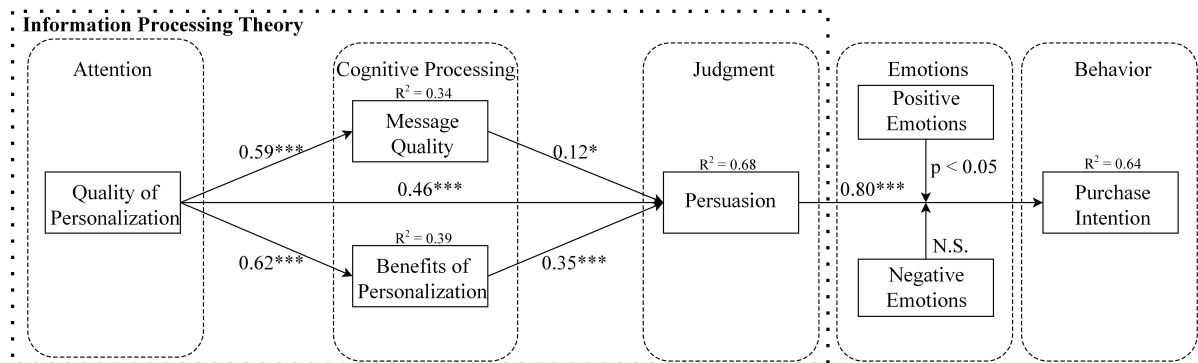


Figure 2a. Research Model and Hypotheses



Note: *** p<0.001, *p<0.05, N.S.: Non-Significant – Fit Indices: $\chi^2/df = 3.76$, NFI = 0.92, CFI = 0.94, RMSEA = 0.06

Figure 2b. SEM Analysis of the Research Model

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Appendix

Scale items with mean, standard deviation, and standardized loading

Construct and Scale Items	Mean	SD	Loading
Quality of Personalization			
1. Online vendors can provide me with personalized deals/ads tailored to my activity context.	4.61	1.44	0.84
2. Online vendors can provide me with more relevant promotional information tailored to my preferences or personal interests.	4.59	1.36	0.88
3. Online vendors can provide me with the kind of deals/ads that I might like.	4.54	1.32	0.84
Message Quality			
1. Personalized services provide correct information about items or services I want to purchase.	4.31	1.30	0.74
2. Overall, I think personalized services provide useful information.	4.50	1.32	0.80
3. Personalized services provide timely information on an item/service.	4.53	1.29	0.76
4. Personalized services provide sufficient information when I try to make an online purchase.	4.29	1.33	0.77
5. I am satisfied with the information that personalized services provide.	4.55	1.40	0.84
6. Overall, the information personalized services provide is of high quality.	4.40	1.43	0.89
7. Personalized services provide timely information on an item/service.	4.31	1.31	0.86
Benefits of Personalization			
1. I think the use of personalized services is convenient.	4.85	1.43	0.85
2. I can save money by using personalized services.	4.66	1.60	0.76
3. I can save time by using personalized services.	5.23	1.57	0.86
4. Using personalized services enables me to accomplish a shopping task more quickly than using traditional methods.	5.08	1.57	0.84
5. Using personalized services increases my productivity in shopping (e.g., make purchase decisions or find product information within the shortest time frame).	4.76	1.57	0.74
Persuasion			
1. Personalized services are persuasive (i.e., based on appeals made to the will, moral sense, or emotions).	4.27	1.40	0.71
2. Personalized services are convincing (i.e., based on evidence or arguments made	4.24	1.40	0.78

to the intellect).							
3. Personalized services are compelling. *	4.05	1.46	0.52				
4. Personalized services are influential.	4.31	1.46	0.69				
5. Personalized services are effective.	4.46	1.32	0.82				
Intention to Purchase							
1. In the future, I intend to continue shopping online based on personalized services.	4.64	1.47	0.93				
2. My general intention to buy online based on personalized services is very high.	4.36	1.54	0.94				
3. I will shop online in the future based on personalized services.	4.36	1.42	0.87				
Emotions							
	Mean	SD	Loading		Mean	SD	Loading
Positive Emotions							
1. Pleasure	3.70	1.73	0.95	1. Contentment	3.72	1.73	0.93
2. Joy	3.51	1.71	0.93	2. Admiration	3.07	1.73	0.76
3. Pride	2.76	1.63	0.74	3. Love	2.39	1.57	0.64
4. Amusement	3.80	1.57	0.75	4. Relief	2.99	1.79	0.75
5. Interest	4.21	1.51	0.68				
Negative Emotions							
1. Anger	2.99	1.71	0.72	1. Disappointment	2.72	1.65	0.68
2. Hate	2.66	1.45	0.85	2. Shame	2.12	1.48	0.87
3. Contempt	3.09	1.83	.65	3. Regret	2.47	1.61	0.80
4. Disgust	2.15	1.39	0.86	4. Guilt	2.04	1.33	0.84
5. Fear	2.79	1.72	0.57	5. Sadness	1.93	1.32	0.77
				6. Compassion	2.12	1.38	0.69
* Deleted due to low loading.							