Building resilience to negative information and increasing purchase intentions in a digital environment

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Abstract

This paper examines the process that leads to resilience to negative information and purchase intentions in a digital environment. A conceptual framework is proposed and tested using a sample of retail banking customers and an application of the structural equation models. The results suggest that consumer behavior in digital settings is more influenced by brand personality than by online brand experience. If a brand can develop and sustain an attractive brand personality, then consumers tend to have a positive attitude toward the brand and discuss the brand positively on social media networks. This behavior will lead to higher resilience to negative information and increased purchase intentions. Although online brand experience does not influence the level of electronic word-of-mouth, it directly affects brand attitude and indirectly influences both resilience to negative information and purchase intentions.

Keywords: online brand experience; brand personality; brand attitude; electronic word-of-mouth; resilience to negative information; purchase intentions.

Highlights

- The importance of resilience to negative information is highlighted.
- Brand personality is relatively more important than online brand experience.
- Online brand experience does not influence the level of electronic word-of-mouth.
- Brand attitude and electronic word-of-mouth act as mediators.
- The resilience to negative information and purchase intentions are correlated.

1. Introduction

Although the literature of consumer behavior in digital environments remains nascent, it has been acknowledged that future consumer marketing will be conducted in digital settings (Stephen, 2016). In this context, social media marketing is considered a critical element for 21st century business (Felix, Rauschnabel, & Hinsch, 2017). Social media has changed the manner in which consumers interact with each other and with brands (Lamberton & Stephen, 2016). Social media has also been viewed as a path to develop customer engagement (Mills & Plangger, 2015). However, social media presents new challenges, and brand managers should revise and adapt their practices to maintain pace (Dehghani & Tumer, 2015).

Advances in Internet technology have increased the complexity of the competitive landscape (Carrol & Ahuvia, 2006), creating a new virtual marketplace that continues expanding. The hyper-complexity of this world of data creates new opportunities and challenges. New players, such as fintech start-ups, are currently taking advantage of these opportunities, offering simplified banking services at lower costs and providing entirely new services (e.g., new forms of payment; loan searches). Although this digital world is currently inhabited by digital natives, older generations are also becoming increasingly digitally savvy. Therefore, customer expectations are likely to change quickly (e.g., bank customers are likely to demand ubiquitous access to digital products and services). In this digital environment, customer-focused tech companies, such as Google or Amazon, may be better prepared to understand the rapid behavioral changes of its customers. Tech companies are currently analyzing customer data and algorithmically repackaging it to generate new offers and advertisements.

In this digital environment, social media is particularly important. Customers are empowered by social media and can be viewed as co-creators of value (Kao, Yang, Wu, & Cheng, 2016). In social media platforms, customers can post their opinions regarding a product or company and share these posts with a multitude of people. Furthermore, social media expands social circles and leverages the frequency and duration of interactions (Luo & Zhong, 2015). Therefore, banks are more exposed to negative information. In this digital landscape, marketing managers have less control. Thus, these managers must understand how to build resilience to negative information. Nevertheless, digital technologies can enable banks to strengthen customer engagement with personalized and innovative offerings. Therefore, it is important to investigate if the

relationships established in the marketing literature for traditional marketplaces remain valid in this digital world.

Considering the aforementioned points, this study examines the process that leads to resilience to negative information and purchase intentions in digital settings. The conceptual model holds that both resilience to negative information and purchase intentions are influenced by online brand experience and brand personality through a dual mediation of brand attitude and electronic word-of-mouth. Therefore, more established influencing factors, such as brand personality and brand attitude, are combined with more recent constructs, such as online brand experience and electronic word-of-mouth, to better understand the process that leads to resilience to negative information and purchase intentions in digital environments.

This study makes four important contributions to the literature. First, the results show that brand personality remains an important construct in digital environments. Second, the effect of brand personality on the outcomes of interest is fully mediated by both brand attitude and electronic word-of-mouth, which uncovers the process that leads to resilience to negative information and to higher purchase intentions. Third, it is highlighted that online brand experience does not influence the level of electronic word-of-mouth, but it directly affects brand attitude and indirectly influences both resilience to negative information and purchase intentions. Finally, this study proposes a correlation between resilience to negative information and purchase intentions, which is supported by the obtained results. In addition to the theoretical contributions, this paper has significant practical implications, which are described in the conclusions.

Following this introduction, in Section 2, the theoretical framework is presented. Then, in Section 3, the sample, measures and method employed are described. In Section 4, the results of the measurement model, the structural model, and the hypotheses testing are shown. In Section 5, the results are discussed. Finally, in Section 6, the main conclusions and contributions are presented.

2. Theoretical framework

Digital environments present new challenges, and brands need to revise and adapt their practices to maintain pace (Dehghani & Turner, 2015). The advancement of the Internet has increased the complexity of the competitive landscape (Carrol & Ahuvia, 2006). Among other complexities, this study acknowledges that brands are more exposed to negative information in social media networks. These online platforms constitute a forum

for user generated content (Kaplan & Haenlein, 2010), which is not under the control of brand managers. Social media enables the co-creation of value by consumers (Kao et al., 2016) and facilitates the shift from brand-to-customer advertising to brand-to-customer-to-brand communications and customer-to-customer social dialogues (Botha & Mills, 2012). Hence, social media presents an ideal opportunity for word-of-mouth marketing (Durkin, McGowan, & Murray, 2014). In social media platforms, negative information regarding products and companies is easily disseminated. Therefore, understanding the process that leads to this outcome is particularly important. Resilience to negative information can be viewed as extra-role behavior (Elbedweihy, Jayawardhena, Elsharnouby, & Elsharnouby, 2016) because it occurs when consumers benefit a brand without thinking purely of their own self-interest (O'Reilly III & Chatman, 1986). Resilience to negative information is likely to reinforce purchase intentions.

This study posits that both resilience to negative information and purchase intentions are influenced by online brand experience and brand personality through a dual mediation of brand attitude and electronic word-of-mouth. The study was conducted with retail banking, which is a highly competitive, complex, and dynamic industry (Beerli, Martín, & Quintana, 2004). The retail banking industry was considered suitable for the study for several reasons. First, the level of differentiation in financial services and products is low (Ferguson & Hlavinka, 2007; Foo, Douglas, & Jack, 2008). Second, banking is closely related to the daily lives of their customers, and they are likely to discuss their bank experiences online (Tang, Mehl, Eastlick, He, & Card, 2016). Third, banking services are characterized by their intangibility; therefore, consumers may rely on information collected on social media platforms to make more informed choices. Furthermore, resilience to negative information is likely to be even more important in the retail banking industry, which is striving to overcome customer skepticism (Tuškej, Golob, & Podnar, 2013). To better guide this research, a conceptual model is presented in Figure 1.

(*Insert Figure 1 about here*)

The digital environment does not provide physical clues (Kollmann & Suckow, 2008), which increases the level of intangibility, particularly in consumer service companies, such as banks. Banking services have always presented a high degree of

intangibility in terms of customer cognition (Devlin, 2000). Customers evaluate a service based on how it is provided (Grönroos, 1990).

Inspired by Morgan-Thomas and Veloutsou (2013) and considering the concept of customer experience (Arnold, Reynolds, Ponder, & Lueg, 2005), the online brand experience represents the individual's internal subjective response to contact with the brand in digital environments. Prior research suggests that a positive online brand experience leads to behavioral intentions (Morgan-Thomas & Veloutsou, 2013). The literature has also acknowledged the influence of brand personality on customer behavior. In an era of increasing commoditization of products and services, brand personality can be used to appeal to consumers and differentiate a brand from its competitors (Freling, Crosno, & Henard, 2011). Although there are several definitions of brand personality, it is generally accepted that brand personality corresponds to the set of human characteristics associated with a brand (Aaker, 1997).

The marketing literature has noted that one of the main objectives in branding is to reinforce or enhance brand attitude (e.g., De Pelsmacker, Geuens, & Van den Bergh, 2007). Brand attitude is "a relative enduring, unidimensional summary evaluation of a brand that presumably energises behaviour" (Spears & Sing, 2004, p.56) and corresponds to the consumers' overarching evaluation of a brand (Colliander & Marder, 2018). If successful, branding should result in favorable customer evaluations (Ansary & Nik Hashim, 2017). A customer intention to purchase a brand is influenced by brand attitude (Voester, Ivens, & Leischnig, 2016). Hence, to promote purchase intentions, brands need to add value to their offerings and develop positive brand attitudes (Zarantonello & Schmitt, 2013), particularly hedonic attitudes such as excitement, delight, and enjoyment (Liao, Wu, & Ju, 2017). Brand attitude results from customers' exposure to the brand, either through the brand experience or digesting the brand marketing content (Keller, 1993). Thus, brand attitude can be influenced by both the online brand experience and the brand personality.

Extant marketing literature has also established that word-of-mouth is an important driver of consumer behavior, which can influence customers' decisions regarding which product to purchase (e.g., Ansary & Nik Hashim, 2017). In a digital environment, the importance of electronic word-of-mouth has also been acknowledged (e.g., Godey, Manthiou, Pederzoli, Rokka, Aiello, Donvito, & Singh, 2016). Electronic word-of-mouth was defined by Hennig-Thurau, Gwinner, Walsh, & Gremler (2004, p. 39) as "any positive or negative statement made by potential, actual, or former customers

regarding a product or company, which is made available to a multitude of people and institutions via the Internet." The growth of social media expanded the role of word-of-mouth (King, Racherla, & Bush, 2014); online social networks leveraged not only customers' social circles but also the frequency and duration of the interactions (Luo & Zhong, 2015). Thus, online social networks enable the co-creation of value, which is of greatest importance for service firms (Utkarsh, 2017). Using these online platforms, customers can either amplify or undermine the effect of brands' marketing actions (Lamberton & Stephen, 2016). The lack of physical clues in digital contexts further suggests that electronic word-of-mouth can help reduce the level of uncertainty in a service setting (Ye, Law, Gu, & Chen, 2011).

Since customers tend to evaluate a service based on how it is provided (Grönroos, 1990), it is reasonable to assume that online brand experiences will influence brand attitudes. Furthermore, consumers are likely to discuss their online experiences (Tang et al., 2016). Social media facilitates the sharing of these experiences. Therefore, it is likely that the online brand experience will influence electronic word-of-mouth. Thus, the following hypotheses are formulated:

H1. Online brand experiences influence brand attitudes.

H2. Online brand experiences influence electronic word-of-mouth.

Past research has noted the importance of subjective evaluations of the brand, such as personality (e.g., Okazaki, 2006). An important stream of research has focused on the effects of brand personality on brand attitude and purchase intentions (e.g., Batra & Homer, 2004). By humanizing a brand, consumers' self-expression and association are encouraged (Belk, 1998). Thus, the brand can play an important role in the customer's life by enabling the projection of an aspect of his or her self that can matter for the relationships he or she seeks (Aaker, 1997). Furthermore, brand personality can help customers express different aspects of his or her self, including their actual or ideal self (Belk, 1988), especially exciting and sincere brand personalities, because these two dimensions relate to three ideals that are key in interpersonal relationships: warmth; vitality; and status (Fletcher, Simpson, Thomas, & Giles, 1999). While interesting brand personalities transmit vitality, uniqueness, and independence, sincere brand personalities are characterized by nurturance, warmth, family orientation, and traditionalism.

The literature has widely acknowledged that brand personality influences brand attitude (e.g., Batra & Homer, 2004). Moreover, there is also evidence that brands are more likely to gain and maintain customers' attention in social media platforms if they

present themselves in a human-like manner (Beukeboom, Kerkhof, & de Vries, 2015). Furthermore, if brand personality can help customers express themselves (Belk, 1988), then it is likely to influence electronic word-of-mouth. Thus, the following hypotheses are proposed:

H3. Brand personality influences brand attitude.

H4. Brand personality influences electronic word-of-mouth.

The literature has established that brand attitude is likely to affect the choice of one brand instead of another (e.g., Solomon, 2014; Voester et al., 2016); therefore, it is likely that it will influence purchase intentions in digital environments. Moreover, since brand attitude corresponds to the consumers' overarching evaluation of a brand (Colliander & Marder, 2018), it is sensible to believe that it will also influence their resilience to negative information. Thus, the following relationships are expected to occur:

H5. The level of brand attitude has a positive effect on resilience to negative information.

H6. The level of brand attitude has a positive effect on purchase intentions.

The influence of word-of-mouth on consumer behavior, compared to other forms of marketing communications, such as advertising, is becoming more important every day (Alam & Yasin, 2010). The importance of electronic word-of-mouth has also been noted (e.g., Godey et al., 2016). Positive electronic word-of-mouth is likely to reinforce resilience to negative information. The literature also suggested that electronic word-of-mouth can influence customers' purchasing decisions (e.g., Ansary & Nik Hashim, 2017). Furthermore, resilience to negative information and purchase intentions are likely to reinforce each other. Thus, it is postulated that:

H7. Positive electronic word-of-mouth influences resilience to negative information.

H8. Positive electronic word-of-mouth influences purchase intentions.

H9. The level of resilience to negative information is correlated with purchase intentions.

3. Methodology

3.1. Sample

The data were collected through an online questionnaire sent to professional attendees of short-term management courses at the University of Coimbra School of Economics. A final sample of 280 valid responses from retail bank customers was obtained. The sample profile is summarized in Table 1. The answers were received between October 15 and November 15, 2016. To test the nonresponse bias, the means obtained for each scale item

from the first forty answers were compared to the means of the last forty answers, in accordance with the procedure recommended by Armstrong and Overton (1977). Using the t-test for equality of means, no significant differences in any of the 19 items used to measure the constructs at the conventional significant level (1% and 5%) were recorded. As shown in Table 1, most of the respondents were female (61.4%), and the largest number of women were in the 31–40-year-old group (40%), followed by the 18–30-year-old group (30%). *Facebook* is the most used social network (used by 93.6% of the users). The education demographics show that 62.1% of the respondents have a post-graduate or master's degree, and 25.4% have graduated; 7.9% have a PhD, and 4.3% have attended high school or less. The banks most represented in the sample are *Caixa Geral de Depósitos* (38.6%), followed by *Santander Totta* (17.5%) and *BPI* (10.7%). According to the results presented on the Statista website (assessed on 29th August 2018), regarding online banking penetration in Portugal, 29 percent of all individuals used online banking in 2016. The usage was higher among those who had used the Internet within the previous three months. Considering the sample demographics, the respondents are likely to frequently use the Internet; therefore, they are also likely to be representative of online customers. Thus, the sample was considered appropriate.

(*Insert Table 1 about here*)

3.2. Measures

The questionnaire included multiple-item scales for each construct, which were tested and validated in extant studies. The scales are presented in Table 2. The questionnaire instructed the respondents to rate their level of agreement with each statement. A 7-point Likert-type scale ranging from 1 ("strongly disagree") to 7 ("strongly agree") was employed.

Online brand experience was measured using the scale proposed by Morgan-Thomas and Veloutsou (2013). Brand personality was based on the Aaker (1997) scale, which was also used by Lam, Ahearne, Mullins, Hayati, & Schillewaert (2013). The scale developed by Aaker (1997) to measure brand personality consists of five dimensions: *i)* sincere; *ii)* exciting; *iii)* competence; *iv)* ruggedness; and *v)* sophistication. This scale is the dominant brand personality scale in the marketing literature (Freling et al., 2011). Among the dimensions proposed by Aaker (1997), sincere and exciting capture much of the variance in brand personality ratings. Therefore, several studies focused on these two

dimensions (e.g., Aaker, Fournier, & Brasel, 2004; Swaminathan, Stilley, & Ahluwalia, 2009). In the current research, in addition to sincerity and excitement, competence was also considered because competence is often part of a bank's personality (Gibbons, 2008). According to Gibbons (2008), every brand less primarily in one of Aaker's (1997) five dimensions but can also have characteristics of a secondary and even tertiary personality. Brand attitude was measured employing the scale proposed by Colliander and Dahlén (2011). Regarding electronic word-of-mouth, the items proposed by Carrol and Ahuvia (2006), which were also used by Park and Kim (2014), were used. Resilience to negative information was measured using the Elbedweihy et al. (2016) scale. Finally, to measure purchase intentions, the scale of Chai, Malhotra, and Alpert (2015) was employed.

3.3. Method

The conceptual model presented in Figure 1 was tested using an application of the structural equation model (SEM). As recommended by Anderson and Gerbing (1988), the proposed SEM was estimated using a two-step procedure. First, the measurement component of the completed model was formulated and evaluated. Second, the structural component of the model was estimated, and the fit was assessed. This analysis was performed using AMOS 25.0 and the maximum likelihood (ML) estimation method.

4 Results

4.1. Analysis of the measurement model

The ML estimation method used to estimate both the measurement and structural models rely on the assumption of multi-normality of the distribution of the observed variables. In accordance with West, Finch, and Curran (1995) and Kline (2017), to access the departure from the normality of the observed variables, skewness and kurtosis were assessed. Skewness ranges from to -.97 to .68, and kurtosis varies between -1.26 and .88; thus, according to the thresholds outlined by West et al. (1995) and Kline (2017), no observed variable departs substantially from the normality distribution. Therefore, the departure from multi-normality is not a major problem in the use of the ML estimation method. After ensuring the assumption of the ML method, a preliminary data analysis was performed to identify items that were poorly correlated with other items of the same scale. The item-to-total correlations were analyzed, and the global model fit of the measurement model of each construct was performed separately using multiple fit criteria [chi-square; goodness of fit index (GFI); normed fit index (NFI); incremental fit index (IFI); Tucker-

Lewis index (TLI); comparative fit index (CFI); root mean square error approximation (RMSEA)]. This procedure led to the elimination of some items of the original scales. Then, each scale's items were subject to one factor confirmatory analysis to test the unidimensionality of each scale. The obtained results confirm that the scale used to measure each construct is unidimensional.

Table 2 shows the items used in the analysis, the standardized loadings, the *t-values*, and the R^2 estimates. Although the chi-square of the final measurement model is statistically significant ($\chi^2 = 273.200$; $df = 137$; $p < .01$), the other most popular goodness-of-fit statistics show that the model is a good fit for the data collected (GFI = .91; NFI =.94; IFI = .97; TLI = .96; CFI = .97; RMSEA = .060).

(*Insert Table 2 about here*)

The psychometric proprieties of each latent variable and the individual item reliability were also evaluated to access the convergent validity, construct reliability, variance extracted, and discriminant validity. Regarding the individual-item reliability and convergent validity, the results show that the standardized factor loadings all exceeded the .50 threshold and were all highly significant ($p < .01$), and the R^2 values were all above the .20 threshold (Hooper, Coughlan, & Mullen, 2008). Thus, it can be concluded that each individual item is a significant indicator of its respective latent variable and supports the convergent validity of the measured items.

Table 3 presents additional aspects of the psychometric proprieties of each latent variable: the correlation coefficients, the Cronbach's alpha values, the composite reliabilities (CR), and the average variance extracted (AVE) estimates. Both the Cronbach's alpha values and the CR of each scale exceeded the .70 threshold, thus indicating that the scales are internally consistent (Fornell & Larcker, 1981). The AVE values are larger than the .50 threshold. To test the discriminant validity, the procedure suggested by Fornell and Larcker (1981) was used; the square of the correlations among the constructs was compared to the AVE for the corresponding construct. The discriminant validity was supported if the AVE of each construct is greater than the square of the correlations among the corresponding constructs. The major correlations among the constructs are .80 (correlations between brand personality and brand attitude), and the square is .64, thus not surpassing the AVE values of the corresponding constructs (.65

and .89). In sum, the constructs used in this study are unidimensional and show acceptable levels of reliability, convergent validity, and discriminant validity.

(*Insert Table 3 about here*)

4.2. Analysis of common method variance

Since the collected data are based on the same method, self-administered online surveys, it is acknowledged that common method bias can occur. This potential bias can be tested using different techniques, such as Harman's single factor test, the correlational marker technique, the unmeasured latent method, and the confirmatory factor analysis test (Fuller, Simmering, Atinc, Atinc, & Babin, 2016). In accordance with Baldauf, Cravens, Diamantopoulos, & Zeugner-Roth (2009) and So, King, Sparks, & Wang (2013), in this study, a confirmatory factor analysis (CFA) test was employed. The CFA model with all 19 items loading into a single common factor ($\chi2 = 1844.796$; $df = 152$) was compared to the CFA results of the proposed model, which include 6 constructs ($\chi2 = 273.200$; $df = 137$). For this purpose, the chi-square difference test was used. The results show that the proposed model fits better than the common factor model ($_{\Delta}\chi2 = 1571.596$; $df = 15$; $p < .001$). Thus, the results provide reassurance that common method variance is not a major issue in this study.

4.3 Analysis of the structural model

The estimation and the evaluation of the structural model was performed to test the hypotheses outlined in the proposed model. Table 4 shows the standardized structural coefficient estimates and the most popular overall model fit statistics. The chi-square is statistically significant ($\chi^2 = 278.02$; $df= 142$; $p < .01$), and the remaining overall model fit statistics indicate a good model fit to the data collected in our sample (GFI = .91; NFI = .93; IFI = .97; TLI = .96; CFI = .97; RMSEA = .059). The structural path coefficients show that most casual relationships proposed in the conceptual model (see Figure 1) received statistical support (8 of 9) and have the anticipated sign. Only the effect of online brand experience on electronic word-of-mouth (H2) is not significant at the conventional significant level. In addition, an analysis of the modification indices revealed that no other causal relationships among the constructs are statistically significant at the conventional significance levels; this further supports the robustness of the hypothesized model.

(*Insert Table 4 about here*)

4.4. Mediation analysis

To test the mediation effects of brand attitude and electronic word-of-mouth on the relationship between the independent variables (online brand experience and brand personality) and dependent variables (resilience to negative information and purchase intentions), three additional models were estimated in accordance with the test procedures proposed by James, Mulaik, and Brett (2006) and adopted by Baldaulf et al. (2009), Grace and Weaven (2010), Protogerou, Caloghirou, and Lioukas (2012), So et al. (2013), and Sáenz, Revilla, and Knoppen (2014), among others.

The estimated results of the base model (Model 1) and additional models are provided in Table 5, Panel A. In Model 2, only a direct effect of online brand experience and brand personality on resilience to negative information and purchase intentions were estimated. Model 3 includes the direct effects of online brand experience and brand personality on the mediators and on resilience to negative information and purchase intentions. Finally, Model 4 corresponds to Model 1, plus the direct effects of the online brand experience and brand personality (exogenous latent variables) on resilience to negative information and purchase intentions.

(*Insert Table 5 about here*)

To investigate the existence of mediation effects, several steps should be considered. First, the independent variables should have a direct effect on the mediators. Second, the mediators should directly influence the dependent variable. Third, the exogenous variables should influence the outcome variables directly, without the presence of mediators. These conditions were assessed in models 1, 2 and 3. Fourth, the effects of the exogenous variables on the outcome variables should become non-significant when including the mediators in the model, or their effect continues to be significant but is reduced; depending on the result, the presence of a full mediation or partial mediation is supported, respectively. This fourth condition was assessed in model 4.

All the above conditions are fulfilled regarding brand personality; however, the direct effect of the online brand experience is not significant at the 5% level. Then, to analyze the partial versus full mediation, two additional analyses are required: *i)* the full

mediation model (Model 1) was compared to the non-mediation model (Model 3); and *ii)* the full mediation model was compared to a partial mediation model (Model 4). A chi-square difference test was performed for this comparison. The results presented in Table 5, Panel B show that Model 1 is significantly better than Model 3 ($_{\Delta}\chi 2 = 40.30$; $\Delta df = 0$; $p < .01$). The comparison with Model 4 also indicates that this model is not significantly better than Model 1 ($_{\Delta}\chi 2 = 3.00$; $\Delta df = 4$; $p > .05$). Regarding brand personality, considering that the paths to resilience to negative information and purchase intentions were not significant after including brand attitude and electronic word-of-mouth, and considering that the difference between Model 1 and Model 4 was not significant, the dual full mediation model was supported. However, for the online brand experience only, the brand attitude acts as a full mediator of the effects of the former on resilience to negative information and purchase intentions.

5. Discussion

The digital environment presents new challenges. Brands are more exposed to negative information and have less control because much of the brand communication is posted by customers, who act as co-creators of value. In this context, building resilience to negative information can be of the greatest importance. For instance, the decision to contract a new bank mortgage loan or the decision to acquire a new credit card can be influenced by the information that individuals collected prior to contacting one of the banks that can provide these products.

In the case of banks, the brand often represents the bank. In general, banks have a negative brand perception (Ferguson & Hlavinka, 2007), and the recent financial crisis has further damaged stakeholders' perceptions of banks (Bravo, Matute, & Pina, 2016). Therefore, the importance of building resilience to negative information is higher in the retail banking industry than in other industries.

The results of the current study show that resilience to negative information positively correlates with purchase intentions. In Figure 2, the results of the hypotheses testing are presented. All hypotheses are supported, with one exception. In contrast with Tang et al. (2016), the relationship between online brand experiences and electronic word-of-mouth is not statistically corroborated. It is likely that the customers do not want to disclose their own personal bank experiences.

(*Insert Figure 2 about here*)

The obtained results enable a better understanding of the process that leads to resilience to negative information and purchase intentions in digital environments. Brand personality remains an important construct in the digital world. In fact, the results suggest that banks are more likely to enhance brand attitudes and to promote electronic word-of-mouth if they present themselves in a humanized manner. The dual mediation of brand attitude and electronic word-of-mouth shows the mechanism by which brand personality influences resilience to negative information and purchase intentions. Therefore, the role of electronic word-of-mouth is highlighted. Although the online brand experience does not influence electronic word-of-mouth, it influences the resilience to negative information and purchase intentions through brand attitude. This finding is consistent with the conceptualization of online brand experience and brand attitude, since the brand experience tends to influence the overarching evaluation of the brand. This finding is also in accordance with past research suggesting that brands need to add value to their offerings and develop positive brand attitudes to enhance purchase intentions (Zarantonello & Schmitt, 2013). This study introduces a construct that is not frequently used: resilience to negative information. In addition to the theoretical justification, the results support the pertinence of using this construct, considering its effect on purchase intentions.

6. Conclusion and contributions

6.1. Theoretical implications

The current paper proposes a model to better understand how to build resilience to negative information and increase purchase intentions in digital environments, thus providing a conceptual framework for future research. Several theoretical contributions can be highlighted. First, the results suggest that brand personality remains an important construct in digital environments. This finding implies that brand personality should be considered in digital marketing theory development because it affects important constructs such as brand attitude and electronic word-of-mouth. Second, the results show that the effect of brand personality on resilience to negative information and purchase intentions is fully mediated by both brand attitude and electronic word-of-mouth, meaning that in a digital setting, in addition to the relevant role of brand attitude, electronic word-of-mouth plays a key role. This finding elucidates the process by which

brand personality influences consumer behavior on online platforms. Third, the results indicate that the online brand experience influences only brand attitudes. Thus, customers wanting to use electronic word-of-mouth to project an aspect of his or her self are more likely to do so based on brand personality instead of online experience. Finally, this study proposes a positive correlation between resilience to negative information and purchase intentions, which is supported by the obtained results. This novel insight calls for further consideration of resilience to negative information in marketing research, particularly when addressing digital environments.

6.2. Practical implications

This study also has practical implications. First, the importance of brand personality suggests that marketing managers should further humanize their brands in digital settings. The development of brand personality will improve brand attitudes and the level of electronic word-of-mouth, which will affect resilience to negative information and purchase intentions. It is worth highlighting that brand personality can become a sustainable competitive advantage, since it is not easy to replicate by competing brands. Second, the results also indicate that online brand experiences can influence both the resilience to negative information and purchase intentions through its effect on brand attitudes. Thus, brand managers should manage online experiences to further reinforce or enhance customers' evaluation of the brand. Third, the results show that electronic word-of-mouth should also be promoted, since it affects both negative information and purchase intentions, meaning that marketing managers should carefully monitor electronic word-of-mouth activities and drive consumer engagement into these activities. This work can be accomplished if the brand personality is appealing to customers. Moreover, the results suggest that building resilience to negative information could be an important objective in digital environments, since it directly influences purchase intentions.

6.3. Limitations and future research

This study is not without limitations that should be addressed in future research. In particular, to further expand the generalizability of the findings, replicating this research is highly recommended to test whether the model is applicable in other industries. Furthermore, other constructs that influence both brand attitude and electronic word-of-mouth could be added to the proposed model to deepen the understanding of the drivers

of consumer behavior in digital environments. Future research could also use different scales to measure the studied constructs, particularly brand personality. Moreover, it can be noted that collecting data from online surveys may not elicit truthful preferences. Therefore, future research could attempt to collect data using other techniques. Furthermore, digital competition should be considered. Therefore, future research could investigate how to improve firm ratings in online platforms.

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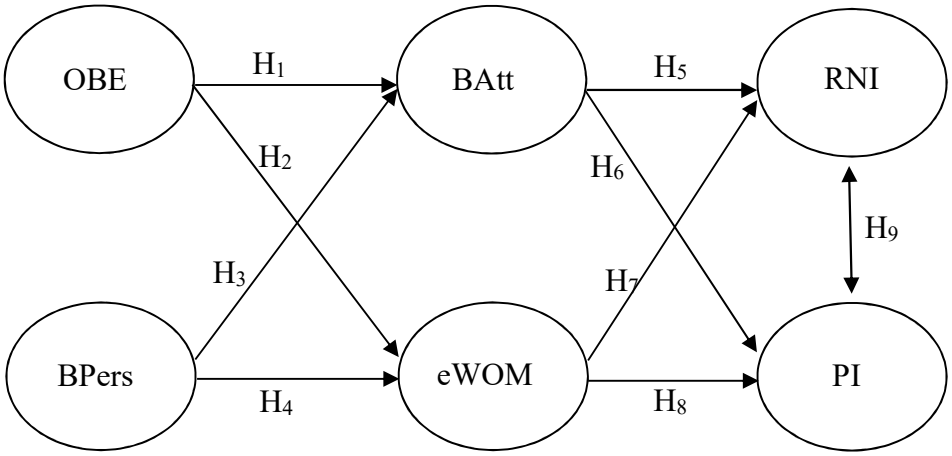
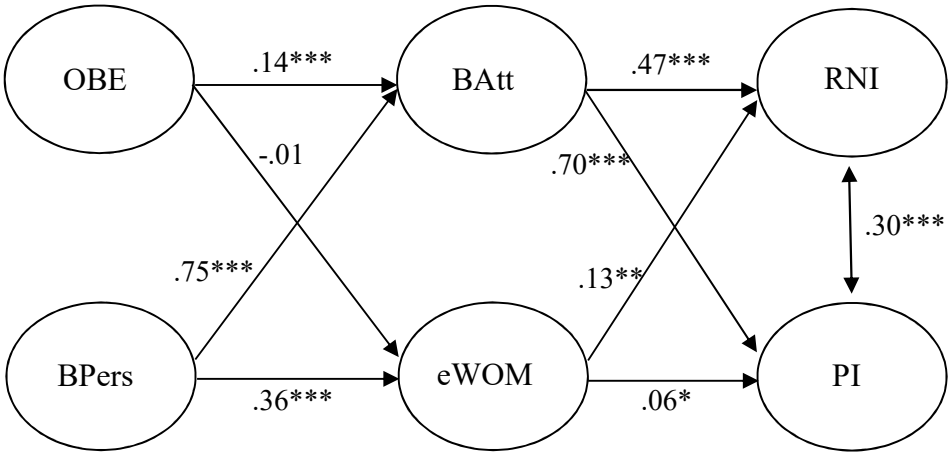
Figure 1: Conceptual model



Legend:

OBE = Online brand experience; BPers = Brand personality; BAtt = Brand attitude; eWOM = Electronic word-of-mouth; RNI = Resilience to negative information; PI = Purchase intention.

Figure 2: Summary of the structural results



Legend:

OBE = Online brand experience; BPers = Brand personality; BAtt = Brand attitude; eWOM = Electronic word-of-mouth; RNI = Resilience to negative information; PI = Purchase intention.

One-tailed significant testing: * significant $p \leq .10$; ** significant $p \leq .05$; *** significant $p \leq .01$;

Table 1: Sample profile

Criteria	Number	%
Sex		
Female	172	61.4
Male	105	37.5
N/R	3	1.1
Total	*280*	*100.0*
Age		
<18	0	0.0
18-30	84	30.0
31-40	112	40.0
41-50	56	20.0
51-60	25	8.9
>60	3	1.1
Total	*280*	*100.0*
Social Networks		
Facebook	141	50.4
LinkedIn	18	6.4
Facebook and LinkedIn or Other	121	43.2
Total	*280*	*100.0*
Education		
High school or less	12	4.3
Graduate	71	25.4
Post-graduate or master's degree	174	62.1
PhD	22	7.9
N/R	1	0.4
Total	*280*	*100.0*
Banks		
Caixa Geral de Depósitos	108	38.6
Santander Totta	49	17.5
BPI	30	10.7
Millennium bcp	27	9.6
Novo Banco	26	9.3
Others	38	13.6
N/R	2	0.7
Total	*280*	*100*

Table 2: Results of standardized parameter estimates, *t*-values, and R^2 for the measurement model

Construct	Items	Stand. loads.	*t-value*	R^2
***Online brand experience* (OBE)**	The (#brand) online pages are appealing.	.65	---	.42
	Search results are always returned promptly.	.87	11.54	.75
	Contents are always up-to-date.	.77	10.70	.60
	Accurate search results are always returned.	.83	11.24	.68
	Source: Morgan-Thomas and Veloutsou (2013).			
***Brand personality* (BPers)**	(#brand) is sincere (e.g., down-to-earth, honest, genuine).	.87	---	.76
	(#brand) is exciting (e.g., daring, spirited, young, up-to-date).	.63	11.39	.39
	(#brand) is competent (e.g., reliable, efficient, leader).	.89	18.83	.80
	Source: Aaker (1997) and Lam et al. *(2013).*			
***Brand attitude* (BAtt)**	This (#brand) is good.	.95	---	.89
	This (#brand) is pleasant.	.94	31.44	.88
	This (#brand) is favorable.	.94	32.06	.89
	Source: Colliander and Dahlén (2011).			
***Electronic word-of-mouth* (eWOM)**	I have recommended the (#brand) online pages to lots of people.	.85	---	.73
	I promote the (#brand) online pages to my friends.	.99	22.84	.98
	I give the (#brand) online pages lots of positive word-of-mouth advertising.	.85	19.01	.73
	Source: Carrol and Ahuvia (2006) and Park and Kim (2014).			
***Resilience to negative information* (RNI)**	If (#brand) did something I did not like, I would be willing to give it another chance.	.77	---	.59
	I will disregard any negative information that I hear or read about (#brand).	.60	8.76	.36
	I will forgive (#brand) when it makes mistakes.	.77	10.22	.60
	Source: Elbedweihy et al. *(2016).*			
***Purchase intention* (PI)**	I will probably use this bank again.	.78	---	.60
	I intend to purchase services from this bank again in the future.	.94	17.40	.88
	It is possible that I will use this bank in the future.	.91	16.87	.82
	Source: Chai et al. *(2015).*			

Notes: Stand. loads = standardized loads. (#brand) corresponds to a particular bank brand.

Model fit: Chi-square ($\chi 2$) = 273.200; *df* = 137; goodness of fit index (GFI) = .91; normed fit index (NFI) = .94; incremental fit index (IFI) = .97; Tucker-Lewis index (TLI) = .96; comparative fit index (CFI) = .97; root mean square error approximation (RMSEA) = .060.

Table 3: Correlation matrix of constructs, Cronbach's alpha coefficients, composite reliability, and variance extracted estimates

Construct	OBE	BPers	BAtt	eWOM	RNI	PI	CR	AVE
OBE	**.86**						.86	.61
BPers	.49	**.82**					.85	.65
BAtt	.51	.80	**.96**				.96	.89
eWOM	.17	.35	.33	**.92**			.93	.81
RNI	.21	.47	.50	.28	**.76**		.76	.52
PI	.35	.62	.72	.29	.55	**.90**	.91	.77

Notes: Diagonal entries (highlighted) are Cronbach's alpha coefficients; CR = Composite reliability; AVE = Average variance extracted.

OBE = Online brand experience; BPers = Brand personality; BAtt = Brand attitude; eWOM = Electronic word-of-mouth; RNI = Resilience to negative information; PI = Purchase intention.

Table 4: Paths, *t*-statistic coefficients and hypotheses

Path	*Stand. coeff.*	*t-value*	Hypotheses
OBE ⟶ BAtt	.14***	2.69	H_1(+): S
OBE ⟶ eWOM	-.01	-.12	H_2(+): NS
BPers ⟶ BAtt	.75***	13.08	H_3(+): S
BPers ⟶ eWOM	.36***	4.92	H_4(+): S
BAtt ⟶ RNI	.47***	6.79	H_5(+): S
BAtt ⟶ PI	.70***	11.61	H_6(+): S
eWOM ⟶ RNI	.13**	1.94	H_7(+): S
eWOM ⟶ PI	.06*	1.31	H_8(+): S
RNI ⟷ PI	.30***	3.61	H_9(+): S

Notes: Stand. coeff. = standardized coefficient; one-tailed significant testing: * significant $p \leq .10$; ** significant $p \leq .05$; *** significant $p \leq .01$; S = supported; NS = not supported.

OBE = Online brand experience; BPers = Brand personality; BAtt = Brand attitude; eWOM = Electronic word-of-mouth; RNI = Resilience to negative information; PI = Purchase intention.

Model global fit: Chi-square ($\chi 2$) = 278.02, *df*= 142, goodness of fit index (GFI) = .91, normed fit index (NFI) = .93, incremental fit index (IFI) = .97, Tucker-Lewis index (TLI) = .96, comparative fit index (CFI) = .97; root mean square error approximation (RMSEA) = .059.

Table 5: Mediation analysis

Panel A: Results of the models estimated

	Model 1, full mediation	**Model 2**	**Model 3**, non-mediation	**Model 4**, partial mediation
OBE → BAtt	.14***		.11***	.14***
OBE → eWOM	-.01		-.02	.01
BPers → BAtt	.75***		.79***	.75***
BPers → eWOM	.36***		.39***	.36***
OBE → RNI	---	.06	-.07	-.09
OBE → PI	---	-.04	.02	-.03
BPers → RNI	---	.48***	.54***	.16
BPers → PI	---	.59***	.68***	.11
BAtt → RNI	.47**		---	.38***
BAtt → PI	.70***		---	.63***
eWOM → RNI	.13**		---	.11*
eWOM → PI	.06*			.05

Panel B: Model comparison

	χ^2	*df*	Δ*df*	$\Delta\chi^2$	GFI	NFI	IFI	TLI	CFI	RMSEA	AIC	BCC
Model 1	278.02	142	Base model		.91	.93	.97	.96	.97	.059	374.0	381.4
Model 3	318.32	142	0	40.30	.90	.92	.96	.95	.96	.067	414.3	421.7
Model 4	275.02	138	4	3.00	.91	.93	.97	.96	.97	.060	379.0	387.1

Notes: One-tailed significant testing: * significant $p \leq .10$; ** significant $p \leq .05$; *** significant $p \leq .01$.
OBE = Online brand experience; BPers = Brand personality; BAtt = Brand attitude; eWOM = Electronic word-of-mouth; RNI = Resilience to negative information; PI = Purchase intention.

GFI = goodness of fit index; NFI = normed fit index; IFI= incremental fit index; TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root mean square error approximation; AIC = Akaike information criterion; BCC = Browne-Cudeck criterion.