

The Impact of Brand Personality and Marketing Communications on Brand Equity: An Exploratory Segmentation Approach

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Abstract

This research assesses the relative impact of brand personality dimensions and perceived marketing actions on brand equity formation. The relative impact of these two elements may vary by consumer segment, so the authors apply a finite mixture–partial least squares procedure to analyse the data. The results reveal that consumers can be segmented into four groups, for which the relative impact of the two independent constructs vary. These exploratory results indicate that brand equity management should be adapted to specific consumer segments according to brand personality dimensions and marketing mix elements.

Keywords: Brand equity, brand personality, perceived marketing actions, finite mixture PLS approach

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Brand equity refers to the incremental value that a specific brand name adds to a basic product (Farquhar, Han, and Ijiri, 1991), including the differential effect that brand knowledge may have on consumer responses to marketing actions by that brand (Keller, 1993). The importance of brand equity stems largely from its influence on future profits and long-term cash flow (Srivastava and Shocker, 1991), as well as potential mergers and acquisitions. Yet despite its critical importance in the brand management domain, limited research attempts to understand or measure the process by which brand equity forms (Barwise, 1993; Yoo, Donthu, and Lee, 2000).

To understand the impact of brand equity in an increasingly competitive consumer market, it may be helpful to begin with an exploration of some of its antecedents. Therefore, we focus on the impact of marketing efforts and brand personality on consumer preferences and resulting brand equity. As stated in prior literature, marketing efforts (Keller, 2003), especially communication activities (Aaker, 1991), price, store image, distribution intensity, promotion deals, and advertising spending, all influence consumer brand value judgments and have a positive impact on brand equity. Another interesting determinant of brand equity is brand personality, defined as “the set of human characteristics associated with a brand” (Aaker, 1997). The various impacts of brand personality on brand equity include enhanced consumer preferences for and loyalty toward a brand (Fournier, 1998; Levy, 1959).

In keeping with previous research, we propose that marketing mix activities (especially communication activities) deployed by the firm and brand personality both influence consumer perceptions of overall brand value. As a result, the question of the relative contribution of brand personality (considered a recent, symbolic marketing tool) and marketing mix elements (a more “traditional” tool) on brand equity formation arises. Although the impact of each element appears separately in prior literature, we find a gap with regard to their relative impact on brand equity, despite the importance of such as consideration, both scientifically and from a managerial standpoint.

Marketing actions may have various impacts on different consumer groups. Consumers differ in their price sensitivity (Garbor and Granger, 1979, Tellis, 1988), innovativeness (Midgley and Dowling, 1978), and deal proneness (Blattberg et al., 1978), to name just a few aspects. In brief, consumer segments respond differently to different marketing instruments. Studies also demonstrate that the impact of brand personality traits across consumer groups (Bartikowski, Merunka, and Valette-Florence, 2008). Therefore, the relative impact of marketing mix elements and brand personality factors should vary across consumers; in turn, we examine how perceived marketing mix actions (i.e., marketing communications) and brand personality dimensions together influence brand equity. Furthermore, we assess heterogeneity in consumer responses to these two elements by implementing an innovative methodology that helps identify consumer segments that exhibit differential responses. Following recommendations by Ringle, Wende, and Will (2008), we apply a finite mixture–partial least squares (PLS) procedure to assess our data pool.

Theoretical Overview

Brand Equity

Global brand equity is integral to the value added by a brand name to a product; to measure it, prior research uses various methods such as price premiums (Aaker, 1991),

conjoint analyses of brand names (Cobb-Walgren, Ruble, and Donthu, 1995), collections of consumer-based perceptions (Agarwal and Rao, 1996), and purchase behaviours (Kamakura and Russel, 1993). Yoo and Donthu (2001) instead use a multidimensional consumer brand equity scale and successfully identify three significant dimensions: loyalty, perceived quality, and brand association/attention. Their proposed method has received confirmation from Washburn and Plank (2002). However, Guizani, Triguero, and Valette-Florence (2008) instead propose a scale with four distinct dimensions: brand loyalty, brand knowledge, social value, and perceived quality. This scale takes into account the brand's social value, which refers to the brand's ability to gather a group of consumers around it as a sort of "community" (Muniz and O'Guinn, 2001). We use this latter scale in our research.

Marketing Actions and Brand Equity

Marketing actions, the term Kirmani and Wright (1989) use to refer to the marketing efforts undertaken by a company, broadly correspond to marketing mix elements (the four Ps). The marketing mix comprises all controllable marketing actions that influence consumer brand knowledge (i.e., consumer psychological perceptions) and result in a positive or negative impact on brand equity (Yoo and Donthu, 2001). For example, advertising campaigns and the resources allocated to them are part of the marketing mix, and these efforts can be measured in terms of real and perceived marketing actions. The correlation between actual and perceived marketing efforts is very strong, and consumers generally believe greater firm investments imply higher brand value. Therefore, perceived marketing actions offer strong predictors of brand valuation (Kirmani and Wright, 1989). In research focused on the influence of marketing mix elements, Yoo, Donthu, and Lee (2000) use perceived marketing efforts rather than real marketing actions to evaluate brand equity; we similarly focus on consumer perceptions of marketing efforts and particularly address their perceptions of advertising expenditures and promotion frequency.

Brand Personality and Brand Equity

Consumer perceptions of marketing actions reflect traditional marketing tools, which implies it might be interesting to consider the novel effect of brand personality dimensions on the consumer and his or her resulting perceptions of brand equity. Prior literature provides some examples of brand personality dimensions that can be integrated into the brand judgment process, with subsequent effects on consumer behaviour and attitudes toward a given brand (Wysong, 2000). Brand personality dimensions therefore should be relevant determinants of a brand's added value and influence brand preferences (Kim, 2000), consumer-brand relationships, brand attachment (Sung, Park, and Han, 2005), and brand trust (Hess et al., 2007).

Thus, our literature review supports the notion that to measure and manage brand equity effectively, brand managers and researchers must consider the relative importance of brand personality versus traditional marketing mix tools.

Research Model

Noting the importance of consumer brand perceptions, and in reference to previous research and our research objectives, we propose a model we might use to study the impact of brand personality and perceived marketing actions on brand equity. In particular, we hypothesize:

H1: Only dominant brand personality dimensions significantly affect brand equity.

H2: Perceived marketing communications significantly affect brand equity.

H2a: Perceived advertising expenditures positively influence brand equity.

H2b: Perceived promotion frequency negatively influence brand equity.

We thus attempt to demonstrate that the impact of brand personality and perceived marketing actions on brand equity will vary across consumer groups.

Research Methodology and Results

Data Collection and Measurement Scales

To test these hypotheses, we use the brand personality scale developed by Ambroise (2006) in the same French context as our study, because culture influences brand personality dimensions (Aaker, Benet-Martinez, and Garolera, 2001; Sung and Tinkham, 2005). For brand equity, we use the measurement scale developed by Guizani, Triguero, and Valette-Florence (2008). Finally, to measure perceived advertising pressure and consumer promotion frequency, we follow Yoo and Donthu (2001). All constructs use five-point Likert scales, and we collected the data through an online questionnaire that targeted graduate students and staff in a large south-eastern French university. In the first version of the questionnaire, the items referred to two major laptop brands (Sony Vaio and Acer), whereas the second version featured two major French coffee brands (Grand'mère and Carte Noire). Ultimately, 538 questionnaires inform the data analysis (respondents: 52% female, 48% male, 71% student and 29% university staff). The response rate was roughly 24%.

Analysis and Results

Prior to testing the proposed structural relationships, we performed a series of confirmatory factor analyses to ensure the robustness of the selected scale structures. All scales are reliable and valid across product categories and brands. We aggregated the brand personality dimensions into two second-order dimensions of brand personality: a positive dimension (agreeability, conscientiousness, and sophistication) and a negative dimension (fallaciousness and introversion). The results from the exploratory and confirmatory factor analyses show that brand equity is a global construct that comprises four first-order dimensions: social value, brand knowledge, brand loyalty, and perceived quality.

Main Effects

The hypotheses tests rely on structural equation modelling (PLS approach; Wold, 1985). The overall fit of the structural model is very good, as indicated by the goodness-of-fit ($Gof = .942$) and R^2 ($R^2 = .87$). Our estimation of the path coefficients of the model support each of the hypothesized relationships at $p < .05$, with the exception of H2a. That is, for the four brands under consideration, perception of brand advertising pressure does not appear to influence brand equity.

In particular, we find two significant second-order dimensions of brand personality. The first combines positively valenced brand personality dimensions (agreeability, conscientiousness, and sophistication), which have a high impact on brand equity (.49, $p = .05$). The second dimension consists of negatively valenced dimensions (introversion and fallaciousness), whose impact is much less noteworthy than that of the positive dimensions (-.15, $p = .05$).

Variations Across Consumer Segments

Previous researchers consider consumers homogeneous with regard to the relationships being tested. We posit instead that consumer segments vary, depending on the relative impact (or path coefficients) of the communication mix and personality on their brand equity perceptions. Because our research is exploratory, we follow recent recommendations from Ringle, Wende, and Will (2005) and Hahn et al. (2002) and apply the mixture model methodology to the PLS structural equation models (i.e., finite mixture-PLS approach, or FIMIX-PLS). The Smart PLS software application results in a four-segment structure, based on the entropy that reaches closest to 1 and the highest Akaike information criterion index. At .71, the entropy value indicates a good separation in the estimated individual class probabilities. Both the path coefficients and descriptive data for each group help explain the characteristics of the segments.

Table 1 shows the path coefficients for the second-order brand personality dimensions and two marketing tools (advertising and promotions), as they relate to brand equity.

Table 1: Path Coefficients for FIMIX-PLS Revealed Segments

	Segment 1: Functional	Segment 2: Deal Prone
Positive personality dim.	.232	.677
Negative personality dim.	-.159*	-.163*
Consumer promotions	.268	.436
Advertising expenditures	.247	-.291
	Segment 3: Risk Averse	Segment 4: Symbolic
Positive personality dim.	.518	.712
Negative personality dim.	-.524	-.274
Consumer promotions	.074*	-.063*
Advertising expenditures	-.052*	.236

* Not significant at $p = .05$

To test for the difference between path coefficients across segments, we conducted a multi-group analysis with a series of permutation tests (Chin, 2003). We do not present the results here, for the sake of brevity, but we take them into account when interpreting the four revealed groups. Globally, the segments differ significantly on at least two independent variables; negative personality dimension and consumer promotions are the most important, in support of their strong ability to indicate consumer heterogeneity.

Consumer segment 1 exhibits strong positive path coefficients between perceived marketing actions (advertising and promotion) and brand equity. Members of this group are strongly influenced by their perceptions of company marketing efforts, rather than by symbolic elements such as brand sophistication or extroversion, when they judge a brand's added value. The impact of positive personality dimensions is weaker than that for other groups.

Segment 2 also is very sensitive to marketing actions, especially consumer promotions. The high positive impact of perceived promotional activities on brand equity indicates that consumers in this segment are deal prone and value the brand for the frequency of its deals. They also value positive brand personality dimensions (more than segment 1 but not differently than segments 3 or 4). They do not value advertising expenditures that relate negatively to brand equity, perhaps reflecting their preference for consumer promotions.

Segment 3 reveals strong negative structural relationships between the negative brand personality dimensions (introversion and fallaciousness) and brand equity. Marketing mix elements do not significantly contribute to this group's perception of brand equity. These consumers are cautious and selective and mostly pay attention to the symbolic negative aspects of brands. They fear being wrong and value brands that minimize risk. They are essentially risk averse and insensitive to marketing communications.

Finally, segment 4 comprises consumers who are very sensitive to both positive brand personality dimensions and advertising. The permutation test indicates that positive brand personality dimensions are statistically more important in this segment than in the other groups, in terms of the brand equity assessment. These consumers seem to evaluate the symbolic aspects of brands through brand personality dimensions and advertising.

Conclusion

Our research objective has been to test for and compare the effects of brand personality and marketing elements on brand equity. At the aggregate level, we find that brand personality dimensions, especially those with a positive valence, influence brand equity more than do traditional marketing communication elements. This previously unexplored conceptualization of brand equity becomes clearer when we split the consumer groups into different segments. We achieve this separation by applying a finite mixture-PLS procedure, on the basis of the impact of brand personality dimensions and marketing communication elements on brand equity. This procedure consists of testing different mixture models and detecting heterogeneity between the groups. To this end, we take into account significant differences between the path coefficients and find great differences across consumer groups. For example, marketing communication elements dominate brand personality dimensions for one group, but for another group, all marketing communication elements are insignificant. These results are important from an academic standpoint because prior research provides only separate studies that note the impact of marketing mix elements and brand personality dimensions on brand equity. Our results enable comparisons of the relative impacts of the different elements. Furthermore, our segmentation approach reveals high heterogeneity across the segments, which brings into question previous general findings regarding brand equity formation and deserves consideration in further studies. Additional research also should focus on explaining and understanding these differences and their general impact on consumer attitudes and behaviours. We suggest in particular an exploration of the elements that may contribute to the assignment of a consumer to one segment rather than another. These elements might include demographic variables or consumption-related variables (e.g., self-esteem, self-image, conspicuousness). An identification of these variables could enable us to understand the relative roles of brand personality and marketing mix elements on brand equity. We also need to deepen our analysis of the impact of brand personality dimensions on overall brand valuation as related to brand equity, which may be instrumental for managerial decisions.

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