

Aaker's Brand Personality Scale in a French Context: A Replication and a Preliminary Test of Its Validity

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Abstract

This article aims to replicate Aaker's research on the dimensions of brand personality. Our study relies on a convenience sample and deals with twelve brands purchased in a French context. By means of principal components and confirmatory factor analyses, Aaker's scale can be reduced in France to 33 items. Its structure is quite similar to the structure Aaker found in an American environment.

Introduction

The adventurous life of a cow-boy in the wilderness is a typical example of the image and the personality a brand like Marlboro seeks to forge, particularly through advertising. Surprisingly, although the study of personality is very old, almost no research was centered on the specific components of the personality associated with brands. Aaker's recent study (1997) is, in this respect, an exception and a major contribution.

The possibility of extending this American study to the French context was explored. The following questions were thus addressed. Will the same number of factors indicated in Aaker's study be found in a French context? Do the French factors mean the same or on the contrary, do they have a different meaning?

In order to answer these questions, this article is articulated around three complementary sections. In the first section, the literature on human personality and its transposition to brands are synthesized. After a description of the data collection procedure, the methodology used in this research, relying mainly on exploratory and confirmatory factor analyses is detailed in a second section. Finally, results are displayed and discussed in a third section, underlining the main theoretical as well as managerial contributions. In the conclusion, re-search limits are pointed out and relevant directions for future research are suggested.

Conceptual Framework

At this core, this research is based on the study of human personality traits undertaken for many years in psychology. Thus, personality research trends are first presented. Next, Aaker's transposition and application of this research to brands issues are discussed.

The study of human personality traits

The origins of the study of personality traits are very old and can be traced back to Theophrastes (4th century B C). He described several types of characters or modes of behavior. Although personality traits have been the subject of a long tradition of research in the social sciences, there is no unique and universally accepted definition. Generally, they are defined as "*dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions*" (Costa and McCrae, 1998, p.104). They must be understood as psychological phenomena which give direction to action and human experience.

The works of Allport (1937), Cattell (1950) and of Eysenck (1960) were precursors of the dominant approach in personality research for about 20 years. As a result, many psychologists are convinced that the best representation of the structure of personality traits is provided by five great factors, commonly called "Big Five" in the American literature (Digman, 1990, see Block, 1995 for a critical vision). In this dominant paradigm, personality traits can thus be described by five fundamental dimensions: Openness to new experiences, Conscientious-ness, Extraversion, Agreeableness and Neuroticism.

On a more operational level, one can mention the hierarchical approach, especially developed to deepen the understanding of the factorial structure underlying personality traits. Within the framework of this approach, each factor summarizes numerous facets. The five factors are at the highest and most abstract level of the hierarchy. They form the structure of personality. Each factor is defined by six conditional and contextual facets. In turn, these facets reflect a great number of distinct and more specific characteristics of personality: personality traits (Costa and McCrae, 1998; John, 1990). McCrae and Costa propose an instrument, the Neo Personality Inventory Revised, to measure them. This instrument includes 240 items (five factors x six facets x eight items) that are measured on a five points Likert-type scale. Research has shown the stability of this structure.

However, many problems remain in the study of personality traits. Even if traits describe recurring modes of behavior, affect, and thought, they do not specify the mechanisms by which durable tendencies concretely appear in particular situations. Even the most enthusiastic supporters of the Big Five point out the difficulty of interpreting the five dimensions (McCrae and John, 1992). In spite of the significant number of research attempts in psychology conducted to conceptualize human personality and to determine its structure, a similar approach in the field of consumer behavior has not been undertaken until Aaker's study.

Brand personality

Aaker (1997) proposed a theoretical model of the concept of brand personality by determining the number and the nature of its dimensions. Considering the lack of consensus among researchers on the definition of this concept and its components, this researcher defines brand personality as "the human characteristics associated with a brand."

It should however be noted that the antecedents of brand personality are different from those of human personality. The perception of an individual's personality traits is indeed inferred from his/her behavior, physical characteristics, attitudes, beliefs, and demographic characteristics (Park, 1986). Perceptions of the personality traits of a brand are inferred by the direct or indirect contact of a consumer with the brand. Consumers associate particular personality traits with a brand directly from the human characteristics they ascribe to the standard user of the brand (McCracken, 1989). Moreover, personality traits can be associated with the brand indirectly through product attributes, associations with the product category, name of the brand, logo or symbol, advertising style, price or distribution channel (Batra et al., 1993).

From a more practical point of view, Aaker generated brand personality traits in three steps. First, redundant traits, among those found both in a literature review in the fields of psychology and consumer behavior, and during tests of free associations of personality traits to brands carried out by consumers, were first eliminated. Secondly, a questionnaire was used to evaluate the adequacy and the relevance of the 309 remaining traits for a set of brands: this allowed to reduce the number of traits to 114. Finally, five dimensions were obtained through a type "O" factor analysis. On each of the resulting five dimensions, a principal components analysis was carried out to determine their facets. A cluster analysis was finally carried out on each facet to determine their specific features. These various procedures led to the presentation of a scale of 42 items.

Globally, the model suggested by Aaker is thus based on a hierarchical approach similar to that developed by McCrae and Costa.

Research Objectives

The model proposed by Aaker is interesting in more than one way, not only does it represent a skillful transposition of what was made in the field of the human personality with brands but it is also of undeniable managerial interest. In particular it seems to apply well to the development of positioning and advertising strategies. However, the question remains as to whether the results of a study conducted in the American context are transposable to another cultural context (Markus and Kitayama, 1998)? This is the reason why this first exploratory study was carried out in order to validate the possible stability of the factorial structure in a French context. If Aaker's scale is transposable to the French context, it should be possible to validate its structure whatever the selected sample and the number of selected brands. Hence it was decided to use a convenience sample and a reduced number of French brands prior to considering a large-scale study based on a representative sample. The retained methodology is detailed in the following section and the main results are displayed in the third section.

Methodology

In this section the nature of the sample is first presented, followed by the procedures used to validate the structure of the scale.

Nature of the sample

This study was carried out on a convenience sample of 246 students, 57.85% of whom were female. Choosing such a sample does not *a priori* question the validity of the study, as Aaker proved the stability of her results between several sub-groups of individuals, among which students. This population was split in three groups of identical size. Respondents were asked to evaluate four brands in two basic consumable categories: Chevignon, Etam, Grand-Mère and Carte Noire for the first group, BN, Lu, Heineken and 1664 for the second, Nike, Adidas, Apple and Compaq for the third. These brands were selected on a convenience basis. Evaluations were based on Aaker's (1997) personality scale (after using back-translation).

Validation of the scale structure

In order to test Aaker's (1997) brand personality scale in a French context, Churchill's (1979) recommendations as well as the usual practices in cross-cultural research were taken as a starting point. The procedures that were followed were divided into three stages. In the first stage, the 42 items retained by Aaker were translated by an interpreting company, following a back translation procedure. In the second stage we tested the scale structure. Of iterative nature, this part of the procedure allows to start from the initial scale structure, tested by a principal components analysis, and to purify the measure by successively eliminating all the poorly affected items, that is, with a commonality lower than 0.5. Lastly, in the third stage, we validated the structure of the reduced scale by means of a confirmatory factor analysis whose results are validated by a systematic bootstrap procedure.

Within the framework of confirmatory factor analysis and for the sake of clarity, we recall that (Bagozzi, 1994, Bagozzi and Yi, 1994):

A dimension shows a good convergent validity if the t test associated with each loading is higher than 2. This criterion can be possibly supplemented by the extracted average variance (Fornell and Larcker, 1981).

A concept shows a discriminant validity if the model tested by leaving free the correlation between the various latent variables proves to be better than a model where the correlation between these variables and the concept under study is fixed at one: for that, the variation between the chi-square for the two models must be significant, considering the difference in degrees of freedom (Bagozzi and Yi, 1988).

These two validity indices for concept measurement must be supplemented by a index of reliability. Cronbach's α coefficient used to be recommended. However, Jöreskog (1971) prefers to replace it by the coefficient ρ of internal coherence, which appears more adapted to structural equations models since it explicitly integrates the error terms and is not based on the restrictive assumption linked to coefficient alpha (Bollen, 1989).

Results

The results of this study are presented in two steps: the presentation of Aaker's scale obtained in a French context, and the comparison between this scale and the initial Anglo-Saxon Aaker's scale.

Implementation of Aaker's scale in a French Context

The presentation of the test of the Aaker's scale in a French context will be articulated around the two stages of the methodological procedure.

Structure of the initial scale: The principal components analysis of the 42 items did not recapture the initial structure of the American scale. The number of factors with an eigenvalue greater than one was seven and quite higher than the five dimensions identified by Aaker. By constraining the structure to five factors, nine variables needed to be eliminated on the ground of their weak commonalities. On the other hand, the scale thus obtained (33 items) had a five dimensional structure which explained 61,56% of the variance.

Trait validity of the final scale: Tables 1 and 2 successively show the factorial structure of the reduced scale, as well as its indicators of convergent and discriminant validity. All these indicators are largely satisfactory and lead to the conclusion of a good trait validity of the obtained scale. In particular coefficient alpha and Jöreskog's ρ are above .80 for each dimension. Hence, each dimension seems to possess acceptable levels of reliability. All the estimates are based on a systematic bootstrap procedure relying on maximum likelihood estimation.

When a method factor is specified by means of correlated measurement errors, as this is necessary in our case since each respondent scored 4 brands successively, one obtains a RMSEA of 0.0617 and a GFI and AGFI of 0.910 and 0.878 respectively. These indices therefore correspond to the acceptability standards reported within the literature.

Comparison Between Aaker's Scale and the Reduced Scale Obtained in a French Context

This comparison is based on two observations. The first observation is rather positive: three dimensions out of five are common, grouping together, except for one item, the same variables around the same idea: dynamism (excitement), robustness and femininity (sophistication). Only the adjective "senti-mental" has an assignment different from that of Aaker. It does not contribute to its dimension "sincerity", but to "femininity", an affectation that seems quite understandable.

Secondly, factors are reorganized starting from the dimensions of sincerity and competence. Indeed, Aaker's sincerity is split in two distinct concepts: sincerity *stricto sensu* and conviviality, which constitutes in a French context a distinct dimension. In addition, Aaker's factor "competence" is not found as such and is divided in two: the items of competence related to real qualities of the brand join with the items of sincerity, which are now deprived of any

connotation of conviviality. On the other hand, some items of competence related to a recognition of the brand (leader, confident) disappear.

Conclusion

The main objective of this article was to evaluate and validate in a French context Aaker's brand personality scale, developed in the United States. Hence, this is one of the first cross-cultural validations of this scale. Although the structural and semantic correspondences with Aaker's five factors are only partial, the results are, after a reduction procedure, very encouraging. Aaker's scale proves to be transposable in a French speaking environment. Four of Aaker's five dimensions emerge: sincerity, dynamism (excitement), femininity (sophistication) and robustness. If dynamism, femininity and robustness are almost identical to the original structure, the meaning of the sincerity dimension evolved noticeably, being freed from a connotation of conviviality, towards the perceived competence of the brands. The fifth dimension of the French scale precisely consists of these items of conviviality, thus creating a distinct factor. The French reduced scale made up of 33 items and articulated around five dimensions provides a coherent and plausible representation of the personality traits associated with the brands. To summarize, the transposition in a French context of Aaker's personality scale seems relatively satisfactory. Only the dimensions of sincerity and competence are reallocated without really disappearing: this reveals an interpretation significantly different from one country to another. In fact, sincerity in an Anglo-Saxon context seems to join with subjective qualifiers characterizing the "human" relationship between a brand and a person, whereas in a French context this sincerity seems to be based on objective elements related to the real performances of the brand.

These results remain exploratory, partly because of many methodological limits in this research. Compared with the procedure developed by Aaker, our collection is of smaller scale, since it includes only twelve brands rated by a small convenience sample. In addition, using only one kind of statistical technique, namely principal components or confirmatory factor analyses, reduces the scope of our results.

Limits of a more conceptual nature also open directions for future research. The comparison between Aaker's scale and the scale obtained in a French context deserves to be confirmed by a large scale validation procedure, based on more than one data collection and a statistical processing of greater width. It requires also a finer analysis of the similarities in terms of dimensions and facets constituting these dimensions. The concept of brand personality remains to be enriched. The first research avenue relates, in our opinion, to the antecedents of brand personality. Which is the source of brand personality that a company can influence? How can this personality vary over time? What are, for example, the interactions between the personality of a mother brand and that of a brand extension? For this reason, a rather logical investigation would be to rely on the personality of the individuals, since a rather recent 44-item scale developed by John et al. (1991) facilitates its measure.

These comments suggest the potentialities of the brand personality concept in consumer behavior. They underline the interest of this study and stress the need for a short, reliable and valid cross-cultural brand personality trait scale.

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TABLE 1
Factor structure of the final scale (bootstrapped estimates)

Dimensions	Items	Load- ing	t Test
Sincerity	Sincere	0.825	41.60
	Honest	0.797	44.60
	Real	0.770	40.09
	Reliable	0.723	35.96
	Secure	0.696	25.84
	Hard working	0.679	26.71
	Wholesome	0.667	28.97
	D o w n - t o - earth	0.649	24.39
	Intelligent	0.616	20.65
	Original	0.567	28.97
Dynamism	Trendy	0.802	47.34
	Up-to-date	0.790	38.34
	Contempo- rary	0.717	32.45
	Imaginative	0.711	33.92
	Spirited	0.687	27.08
	Spirited	0.665	28.29
	Young	0.630	26.59
	Exciting	0.616	23.47
	Daring	0.541	16.48
	Successful		
Femininity	Charming	0.926	123.-
	Good looking	0.922	64
	Glamorous	0.793	77.51
	Smooth	0.632	42.00
	Feminine	0.574	26.69
	Sentimental	0.481	20.30
Robustness			16.12
	Tough	0.905	63.68
	Rugged	0.904	65.54
	Outdoorsy	0.518	17.30
User-friend- liness	Technical	0.514	17.92
	Cool	0.791	41.74
	Friendly	0.684	30.44
	Cheerful	0.676	28.36
	Family-ori- ented	0.446	11.84

Validity indices of the model	RMSEA	0.0617
	GFI	0.910
	AGFI	0.878

TABLE 2

Trait Validity of the Scale

Convergent validity	Dimension 1:	ρ_{VC}	0.65
	Sincerity	T	*>2
	Dimension 2:	ρ_{VC}	0.62
	Dynamism	T	*>2
	Dimension 3:	ρ_{VC}	0.68
	Femininity	T	*>2
	Dimension 4:	ρ_{VC}	0.66
	Robustness	T	*>2
	Dimension 5:	ρ_{VC}	0.56
	User-friendliness	T	*>2
Discriminant validity			

The discriminant validity, as tested in the methodology section, appeared to be correct.

Reliability	Cronbach's Alpha	Jöreskog's ρ
Sincerity	0.87	0.95
Dynamism	0.87	0.94
Femininity	0.86	0.92
Robustness	0.82	0.88
User-friendliness	0.80	0.83

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