Hierarchical Structure of Brand Authenticity

[1] **Maiara Regina Kososki**
[2] **Paulo Henrique Muller Prado**

Abstract

Objective: The aim of this paper is to propose a new brand authenticity scale based on consumer assessment considering the hierarchical structure of the scale's forming dimensions.

Method: A survey was conducted (780 individuals) via online panels, in Brazil and the United States. An Item Response Theory analysis procedure was conducted in order to analyze the hierarchical structure of these dimensions.

Originality/Relevance: The use of the IRT is novel in the brand authenticity context. Previous works have focused on multivariate techniques, since they, relatively; satisfy the most important marketing research needs, such as the ability to analyze complex data.

Results: As a result, a consistent and parsimonious scale was obtained, based on 09 dimensions, which form the construct, including: spontaneity, quality commitment, essence, nostalgia, values, simplicity, design, originality and origin.

Theoretical/methodological contributions: This paper contributes to the literature of brands by developing a metric that addresses unexplored dimensions, so far.

Social/management contributions: For managerial purposes, the scale is a tool to assess the brand positioning and therefore provide new strategic approaches.

Keywords: Brand Authenticity. Hierarchical Structure. Item Response Theory. IRT.

[1] Universidade Federal do Paraná - UFPR, Paraná, Brasil - https://orcid.org/0000-0003-1791-6085 - <maiarakososki@gmail.com>

[2] Universidade Federal do Paraná - UFPR, Paraná, Brasil - https://orcid.org/0000-0002-7351-6089 – <pprado@ufpr.br>

Introduction

Truth cannot be left behind in an authentic world. Information spreads everywhere at a glance. Think of when you go to the supermarket or to a department store. You face a new brand. Probably, you'll Google™ the brand rather than visiting the brand's website. Why is that? You have to receive information from real people, real consumers, to feel the real satisfaction or the real dissatisfaction. Your brain is filled up with lots of information regarding products and which of them to consume. How do these products can really represent who you are? How can they be authentic to enter your everyday life? The amount of brands that are present in the daily lives of consumers tends to infinity. Thus, consumers seek clarity and detailed information about what they use to ensure them security and to help them making decisions about the products they buy. And this is only a part of a larger story about the consumers' relationship with brands. Consumers increasingly seek an honest relationship with the manufacturers. Therefore, in order to enter the world of authenticity, the idea of this paper arises once the brand authenticity measures that already exist don't cover the full range of dimensions of its structure.

Authenticity can be exploited with different intentions, from various perspectives (Leigh, Peters & Shelton, 2006). It can be addressed in an objectivist manner in which authenticity is seen as a quality inherent to an object and evaluated by experts such as works of art in museums (Morhart et al., 2015). There is also the constructivist approach in which the beliefs and expectations of an individual are projected on a product or experience. Through reproduction and/or construction they represent a "commercially created authenticity" (Grayson & Martinec, 2004; Morhart et al., 2015; Stern, 1994). Also, there is the existentialist perspective in which it is assumed that in a scenario of consumption, authenticity exists only from the time that it enables the discovery of the individual's true self. Reality shows can be a means of discovering the true identity of the individual. Additionally, brands that provide possibilities for the meeting of the "I" itself have an existentialist approach, as the Dove™ brand that promotes the achievement of real beauty to users (Morhart et al., 2015; Rose & Wood, 2005). Despite the interpretations attributed to the concept of authenticity, within the brand management literature, the perspective addressed in this paper is the interconnectivity approach. In other words, brand authenticity is assigned to a product (objectivism), through the evaluation of a consumer for their cognitive associations such

as the experience and the memory (constructivism) and provides a consumer's meeting to its true self (existentialism) (Morhart et al., 2015). Therefore, the concept adopted throughout this article is that brand authenticity is a set of dimensions related to an object, perceived through the evaluation of a consumer, that represents what is genuine, real and true and promotes the encounter of the consumer true self (Beverland et al., 2010; Morhart et al., 2015).

The authenticity is present in the various spheres of human beings, the arts, literature, philosophy and even the social sciences. In the social sciences, specifically in marketing, authenticity is related to various aspects of consumption. Studies of brand authenticity manifest relevance in research themes since the 1990's (Arnould & Price, 1999; Stern, 1994). Stern (1994) has begun studying authenticity, in the marketing field, examining the ability of brands to convey the true daily lives of consumers through authentic advertisements. Arnould and Price (1999) and Grayson and Shulman (2000) have initiated their studies in relation to objects, people and consumer experiences. Kozinets and Handelman (2004) related the authenticity to creativity, identity and individuality of human beings. Still, in the individual analysis, Holt and Thompson (2005) associated the authenticity of a brand by building concepts of consumers' identity. Botterill (2007), then, discoursed about authenticity as a mechanism used in advertising to entice consumers. Newman and Dhar (2014) analyzed brand authenticity in relation to its country of origin and brand essence.

The studies cited throughout the preceding paragraphs show that authenticity is an important issue in practical and academic fields. The relevance of this work lies in the fact that the brand authenticity metrics, developed to date (Bruhn et al., 2012; Morhart et al., 2015; Napoli et al., 2013; Schallehn et al., 2014), do not wholly address the crucial dimensions to the development of brand authenticity concept. Thus, in order to enlighten the authenticity world, the scale presented in this paper, can be used both in academic and in managerial practices.

The authenticity in the context of the brands deals with market offerings (products and services) in contrast to the pursuit of authentic human beings. Although, a cohesive definition of brand authenticity is not found in Marketing; in such a manner, brand authenticity corresponds to a range of attributes that are evaluated by consumers. This difficulty in establishing a harmonious concept is given due to the complexity of the term (Boyle, 2003). Being a construct that is still not

unified, has plenty room for exploration, and does not have a consensus on how to measure it; brand authenticity is delimited as the central theme of this article.

The article proposes possible answers to the following questions: What dimensions of brand authenticity are essential for the establishment of a solid scale of brand authenticity? What is the hierarchical structure of those dimensions? The overall objective of this paper is to develop a multidimensional scale to the brand authenticity construct based on consumer evaluation. In other words, it means that the assessment is based on the user evaluation to determine a measure of brand authenticity in a cognitive and behavioral means.

Brand authenticity scales

Up to date, four scales were developed in order to measure brand authenticity (Bruhn et al., 2012; Morhart et al., 2015; Napoli et al., 2013; Schallehn et al., 2014). Brand authenticity is based on consumer evaluations in contrast as an inherent attribute to a brand and still, there is no single definition of the term (Bruhn et al., 2012). Bruhn's et al. (2012) scale consists of four dimensions: continuity (the brand is continuous and stable over time), originality (creativity, originality and potential of brand innovation), reliability (keeping promises to consumers and truth) and natural (to be genuine and/or natural). In general, the scale length is reasonable and therefore, easy to implement. However, while not being extensive, the scale does not cover dimensions that are considered essential for the brand as place of origin, sincerity, quality and design.

According to Napoli et al. (2013), authenticity is critical to the status of a brand and its corporate reputation. Their scale consists of 19 items. The scale is more complete compared to Bruhn et al. (2012) and addresses three critical dimensions of brand authenticity: Sincerity (2 items), heritage (10 items) and quality commitment (7 items). Still, it does not address all relevant dimensions for the construct.

Schallehn et al. (2014), developed a scale that examines the background of authenticity as well as its effects. The model of Schallehn et al. (2014), unlike other scales, tests records and after-effects of brand authenticity. However, in the same way of those other scales, it only uses one country to test the data, which does not address the complexity of brand authenticity.

Morhart et al. (2015) created a scale formed by 4 dimensions and 15 items, named as "Perceived Brand Authenticity". It was built based on U.S. consumer's assessment and high statistical accuracy. Unlike the scales priory presented, this is the most complete. However, still, it does not address the robust concept of authenticity. The authors used products and services brands and tested other constructs of brand management for discriminant analysis, such as brand attitude. However, in view of the complexity of the concept of brand authenticity, the scale is not sufficient, as it does not address factors such as quality, sincerity, and origin of the brand, originality and design. The scales show the changes in relation to construct brand authenticity.

Critical dimensions perceived on brand authenticity

Many of the critical dimensions of brand authenticity (loyalty, tradition, quality, original product, origin) are explored in qualitative studies (Beverland & Farrelly, 2010; Kolar et al., 2010; Leigh et al., 2006; Morhart et al., 2015; Thompson, Rindfleisch, & Arsel, 2006) and do not address its dimensions by quantitative data, resulting in a lack of consensus on its definition. In order to corroborate to the theoretical framework of brand authenticity, this article explores the main factors that form the construct which are detailed in the following paragraphs.

One of the key dimensions addressed by brand management theorists is **quality commitment**. Quality commitment means to keep to the brand original principles, through the manufacturing process, materials and product design, regardless of changes in the market (Beverland, 2005; Gilmore & Pine, 2007). Through the lens of brand authenticity, the brand is associated with a perception of quality based on consumer knowledge and experiences (Rose & Wood, 2005).

Another relevant dimension is **nostalgia**. Nostalgia is an individual or collective preference for objects that were common when a person was a teenager or in its early adulthood (Belk, 1990; Holbrook, 1995). Holbrook (1995, p. 69) defines: "things were better back then". Thus, a brand that arouses feelings of nostalgia binds the consumer to its past and strengthens its social relationships within a community. Vintage brands are rich in both personal and community associations. They promote the rebirth of a brand from an earlier era, which is then updated to meet current standards (Brown, Kozinets, & Sherry, 2003). More simply, Beverland and Farrelly (2010)

relate the nostalgia of a bygone era, simpler. Napoli et al. (2013), likewise, associate nostalgia to consumer memories to a "golden age" that is perpetuated and still does have a strong link with the past (Napoli et al., 2013).

Fine (2003) defines **originality** as the desire for authenticity now occupies a central position in contemporary culture. If in our search for individuality, leisure experience, or our purchases of materials, we seek the real, the true. The presence of the original is central to the concept of authenticity and existence of original is enhanced by their survival over time (Derbaix & Decrop, 2007). The originality is related to creativity, innovation and spontaneity. Moreover, originality and naturalness of the brand can be influenced positively by stimulating the local valorization, as this is unique to each brand (Bruhn et al., 2012).

Simplicity is also seen as a builder factor for brand authenticity. For Boyle (2003), brand authenticity covers concepts such as ethics, naturalness, honesty, simplicity and sustainability. Leigh et al. (2006) relates it simply to the charm. In the context of wines, Beverland et al. (2008) believes that the simplicity of the logo printed on the bottles refers to its authenticity. Kapferer (2008) combines simplicity with purity, discretion, naturally, peace and harmony.

The authenticity of a brand reflects aspects of its production and foundation. Also, how loyal it is to demonstrate this to its consumers (Beverland et al., 2008). The brand **origins** stand out a physical connection to those early days. Because of globalization, it is common for products of the same brand to be manufactured in a location other than where the company was originally founded. Due to the belief-based contagion, the original factory products are viewed as those most likely to contain the essence of the brand. In turn, this belief in essence transferred leads consumers to see the products from the original factory, as more authentic and valuable than similar products made elsewhere (Newman & Dhar, 2014).

Values are also strongly associated with building brand authenticity. A brand would be authentic if it embodies the chosen values of its founders, owners or members, rather than a simple convention of society (Carrol & Wheaton, 2009). Eggers et al., (2012) suggest that the brands must have consistency and congruence and clearly define values that reflect where they came from and what they are today. Brands that have history and connection to traditional cultures, customs, regions and beliefs take on a different identity and a nostalgic aura that add authenticity to it (Brown et al., 2003; Chhabra, Healy, & Sills, 2003; Peñaloza, 2000; Postrel, 2003).

Another factor in this conceptualization of brand authenticity is the **essence**. The essence of the brand is its DNA, its core; it is consistent and unchanged over time (Heding et al., 2009). According to Heding et al. (2009, p. 12): "The essence of the brand should be the same through time and no marketing action that compromises it should be allowed".

Spontaneity is another key factor for the understanding of authenticity. Arnould and Price (1999) suggest that extraordinary experiences are spontaneous, i.e., without prior preparation. Spontaneity differs an extraordinary experience of activities of daily routine (Arnould & Price, 1999). The naturalness of a brand is to maintain and display its essence to consumers (Boyle, 2003). Spontaneity expresses the sense of passion in relation to a territory and its natural resources (Ranfagni & Guercini, 2014).

The **craftsmanship factor** is another concept linked to the brand authenticity construct. Being crafted corresponds to the creation of an object in a workshop by insurance and nimble fingers of a skilled craftsman (Tungate, 2009). The "being handcrafted" is related to the distance of mass production. "Brands can acquire an aura of authenticity through a commitment to traditions, a passion for craft and production excellence and the public disavowal of the role of modern industrial attributes and commercial motivations" as quoted by (Beverland, 2005, p. 1008).

Consumers judge as authentic those products that represent to be create and **sincere**, unlike those products produced in mass. Organizations should act with sincerity; which are committed to providing products and sustainable services. Those practices are a reflection of the heritage of a high quality brand, that is, the brand does not deviate substantially attributes of the core in which it was originally built. This suggests that sincere when considered in connection with the brand authenticity is related to values and principles (Napoli et al., 2013).

The last dimension of authenticity chosen for this work is the **design**. Brands that retain its original design, modernize slowly through innovation and that do not follow trends can be considered authentic (Beverland, 2006; Beverland et al., 2008). Radical changes in designs may confuse consumers and lead to doubt about the brand authenticity (Brown et al., 2003).

Methodology

To develop a consumer based brand authenticity scale, the model of Churchill (1979) was used as the method. The initial step was reviewing literature from brand authenticity. Existing brand authenticity scales were chosen in the literature: Bruhn et al. (2012), Napoli et al. (2013), Schallehn et al. (2014), and Morhart et al. (2015). Next, the back-translation of the scales available was done. Two English teachers translated the brand authenticity scales into Portuguese. One of the professionals performed the translation from Portuguese into the original English language. Later, another professional performed the reverse translation. After the translations, three experts in consumer behavior and brand management carried out the comparison between the original scale and the translations. After the back-translation, qualitative techniques were applied (focus group and projective techniques) in order to confirm the existing items on the scales and to generate new items of the novel scale. The focus group was held with graduate students from a major university in Brazil, who had as a mediator of the session a Marketing professor. The purpose of this focus group was to establish and provide insights on the subject of this paper to hear the opinion of consumers with different experiences, once consumers are the ones to evaluate a brand as authentic or inauthentic. Five specialists, from the consumer behavior field in Brazil, and brand management from the US, performed face validation tests. There was an agreement among all of them regarding the improvement of some items of the survey. The purpose of this step was to provide greater quality to the measuring instrument. The choice of brands was given based on (1) the presence of the brand in the US and in Brazil; (2) brands from different categories and different prices; (3) brands that led to different consumption situations, such as places, time and interaction between its users.

In order to promote greater internal consistency, we have decided to separate the data into three different samples. Sample number 1 corresponds to 210 valid responses, in Portuguese, collected in Brazil; sample 2 is based in 248 valid responses, in Portuguese, collected in Brazil. For collecting the data in Brazil, the survey was made available through an electronic link in the social network Facebook. It was spread into 101 groups of different characteristics, in the social network LinkedIn and via e-mail through Qualtrics tool among students and former students of the

University of São Paulo (USP). Sample 3 is based in 247 valid answers, in English, collected in the US among respondents registered in the Amazon Mechanical Turk (MTurk).

Authenticity Dimensions Assessment

For data analysis, it was initially done a check of Cronbach's alpha by analyzing the internal consistency of a set of items. The purpose of this analysis was to determine the dimensions of the resulting data collection and simplify, condense and summarize the structure of brand authenticity of items through exploratory factor analysis (EFA) (Hair et al., 2010). The next step was to evaluate the internal consistency of each dimension that resulted from the exploratory factor analysis. The items were purified by means of the exploratory factorial analysis and by the Alpha coefficients of the generated dimensions, excluding items that contributed little to the internal consistency of the dimensions.

After the identification and selection of nine dimensions of brand authenticity, items belonging to each of the dimensions were filtered, to eliminate those which had low loads and were not consistent to original dimensionality. The EFA was performed separately for samples 01 (Brazil1), 02 (Brazil2) and 03 (US). The purpose of this division of the total sample was to verify the stability of sets of variables for all samples. There were left only those items that appeared in its original size and in three samples simultaneously. Factors such heritage, craftsmanship and sustainability were eliminated since the range was made up of only one item each in the samples (Beverland et al., 2010; Morhart et al., 2015).

Table 1 - *Brand Authenticity Scale*

	Loadings Sample 1 (BR1)	**Loadings Sample 2 (BR2)**	**Loadings Sample 3 (US)**
Quality Commitment	$\alpha = 0.81$	$\alpha = 0.84$	$\alpha = 0.89$
The brand is committed to always maintaining the quality of its products.	0.88	0.77	**
The brand uses high quality standards in its manufacturing processes.	0.82	0.81	0.84
The brand uses quality standards in its manufacturing processes, which are not easily copied.	0.50	0.59	0.70

The brand uses raw materials of high quality for the preparation of its products.	0.81	0.72	0.72
Nostalgia	α = 0.85	α = 0.91	α = 0.89
The brand reminds me of a specific place in my life.	0.77	0.83	0.85
The brand reminds me of a specific moment in my life.	0.84	0.87	0.84
The brand reminds me of something important I've done in my life.	0.83	0.88	0.85
The brand reminds me of an important person in my life.	0.69	0.79	0.77
Craftsmanship	α = 0.79	a= 0.85	α = 0.81
The brand has constant care in the manufacturing process of its products.	0.78	0.73	**
The brand reflects unique features in its products.	0.72	**	0.70
The brand preserves handmade elements in its manufacturing process.	**	0.64	0.70
Originality	α = 0.72	α = 0.73	α = 0.72
The brand has its own characteristics that differentiate it from its competitors.	0.57	0. 25	0.58
The products have unique characteristics compared with the products of its competitors.	0.57	0.60	**
The brand makes me feel different from other brands when I consume it.	0.54	0.60	0.51
The brand is unique in its advertising campaigns.	0.45	0.68	0.48
The brand is unique in everything it does.	0.51	0.66	0.56
Simplicity	α = 0.80	α = 0.80	α = 0.79
The brand reflects elements of simplicity in its products.	0.80	0.86	0.86
	Loadings Sample 1 (BR1)	**Loadings Sample 2 (BR2)**	**Loadings Sample 3 (US)**
The brand has a clear purpose for its consumers	0.33	0.40	0.66
The brand simplifies my decision to purchase	0.46	0.46	0.40
The brand has clear practices to its consumers	0.33	0.40	0.66
Origin	α = 0.85	α = 0.86	α = 0.85
The brand reflects the essential characteristics of its place of origin.	0.64	0.73	0.68

The brand is rooted with values from its place of origin.	0.56	0.68	0.73
The brand uses in its manufacturing process products from its place of origin.	0.69	0.6	0.44
Values	α = 0.85	α = 0.82	α = 0.82
The advertising campaigns of the brand represent its values.	0.70	0.66	0.67
The brand has embedded values.	0.66	0.57	0.63
The brand reflects integrity to its consumers.	0.73	0.44	0.63
The current position of the brand reflects its values.	0.57	0.62	0.60
The brand has never disappointed me in relation to its values.	0.58	0.42	0.53
Essence	α = 0.90	α = 0.90	α = 0.88
I can identify the core essence of the brand.	0.78	0.73	0.68
The brand does not lose its essence, regardless of the context in which it operates.	0.72	0.67	0.70
The essence of the brand is perceived in all its products.	0.67	0.70	0.70
The symbols reflect the brand essence.	0.59	0.46	0.52
Spontaneity	α = 0.94	α = 0.93	α = 0.92
The brand makes me feel spontaneous.	0.90	0.87	0.84
The brand attracts consumers for its spontaneity.	0.89	0.88	0.82
The brand reflects spontaneity to their consumers.	0.85	0.84	0.83
The brand represents freedom for its consumers.	0.84	0.84	0.83
I feel free when using the brand.	0.84	0.76	0.84
I see freedom in other consumers of this brand	0.83	0.77	0.83
Design	α = 0.74	α = 0.63	α = 0.58
The design of the brand is timeless	0.52	0.58	0.55
	Loadings Sample 1 (BR1)	**Loadings Sample 2 (BR2)**	**Loadings Sample 3 (US)**
Despite innovating the brand retains its original design features in its products	0.49	0.40	0.43
The brand design is unique	0.67	0.71	0.64
The brand has unique design features which are not easily imitable	0.86	0.82	0.84

The brand design does not follow trends	0.86	0.80	0.86
The brand has focus on the design of its products.	0.44	0.46	0.46
KMO	0.92	0.89	0.93
Bartlett Sphericity Test	8,519.749	8,757.726	0.93

After that, to establish the validity of the brand authenticity construct, one must determine the measures that correlate with the others that are intended to measure the same dimensions and if the measure behaves as expected (Churchill, 1979). So, the Confirmatory Factor Analysis (CFA) was performed, which is a multivariate technique to test / confirm a pre-specified relationship (Hair et al., 2010). The samples were divided between Sample 01, Sample 02 and Sample 03. In addition to the Alpha coefficient, Hair et al. (2010) suggest two measures to verify the adequacy of the sample: the Bartlett sphericity test and the Kaiser-Meyer-Olkin Measure of Sampling (KMO). The Bartlett sphericity test tests the hypothesis that the data correlation matrix is an identity matrix, that is, the items are only correlated with themselves. If the values of the Bartlett test are high, there is an indication that the factorial analysis is adequate. As a way to verify if the dataset of the three samples was adequate, the KMO test was performed. For the data to be adequate, the KMO value must be 0.6 or higher. In relation to the Barlett value sphericity test, for the value to be significant it is necessary that it be 0.05 or less (HAIR et al., 2010). In the case of the three samples the data set resulting from the factorial analysis is adequate, since the KMO values of the samples were 0.919; 0.889 and 0.931 respectively, considered admirable by Hair et al. (2010).

The Hierarchy of Authenticity Dimensions

The main issue of covariance structure analysis in this application is that it captures the common variance among the authenticity dimensions. The major part of authenticity scales represents this perspective, but normally presents facets of the process of developing the concept (Bruhn et al., 2012; Morhart et al., 2015; Napoli et al., 2013; Schallehn et al., 2014).

The possibility of mapping the hierarchical structure of authenticity could be based on the IRT unidimensional logistic model with 2 parameters (ML2) for 1 group (Birnbaun, 1968; Samejima, 1969), given as:

$$P(X_{ij} = 1 | \theta_j) = \frac{1}{1 + e^{a_i(b_j - \theta_j)}}$$

with   i = 1, 2,..., I e j=1, 2,... n.

— X_{ij} is the random variable, dichotomous, with values 1 or 0 (when the subject j indicates the authenticity characteristic i is present or absent);

— θ_j is the parameter that represents the global authenticity intensity;

— $P(X_{ij}=1|\theta_j)$ is the probability of authenticity characteristic i be indicated by subject j for a global brand authenticity intensity θ_j;

— b_i is the position parameter of authenticity characteristic i, measured at the same scale of global authenticity intensity;

— a_i is the discriminant parameter (or slope) of authenticity characteristic i, corresponding to the slope of the tangent line at the point bi.

Note that $P(X_{ij}=1|\theta_j)$ should also be analyzed as the proportion of the authenticity dimension j among all brands with the same global authenticity intensity θ_j. The curve that characterizes the different values of θ and $P(X_{ij}=1|\theta_j)$ is the Item Characteristic Curve – ICC, as presented at graph 1.The proposed model is based on the authenticity dimensions do not have a linear relationship with the global brand authenticity. The "S" shape of ICC curve with slope and position at the global authenticity level is defined by the parameters of each dimension.

The **b** parameter represents the level of the authenticity dimension in increasing the probability of a brand to be more authentic, indicated by a subject. With a larger **b**, there is a smaller probability to find the correspondent authenticity dimension at the brand/subject combination.

For **a** parameter, largest values indicate that the correspondent authenticity dimension has a lower discrimination power compared to others. Higher values indicate the ICC is sharper. These values represent a larger discrimination capacity of the item.

For this application, each dimension had been transformed to a binary variable, based on the 75% cut point of the grand mean sample distribution. That is, with a grand mean of 3.754, and a mean of the 3th quartile of 4.424, each individual indicates that the dimension i is presented at brand j when her evaluation is higher than 4.424; otherwise the referred dimension i is not at brand j. The table X presents the IRT parameters for each dimension.

Table 2 - *IRT Parameters for Brand Authenticity Dimensions*

	A	B
Spontaneity	1,33	-0,13
Quality Commitment	1,36	-0,88
Essence	2	-0,51
Nostalgia	1,07	1,09
Values	2,4	0,01
Simplicity	1,84	0,37
Design	1,34	-0,18
Origin	2,18	0,62
Originality	1,53	-0,74

Figure 1 illustrates the ICC curves for the total sample. At this graph is possible to see that quality commitment, originality, and essence are the less important dimensions on authenticity hierarchy. Comparing these results with Bruhn et al. (2012), Napoli et al. (2013), Schallehn et al. (2014), and Morhart et al. (2015), these dimensions are the ones with a common variance among all brands and serve as a baseline to construe brand authenticity. But they are not the ones that give the transform brands as genuine entities. Nostalgia, origin and simplicity could be considered the ones that permit a brand to be considered more authentic. And, as a property of IRT analysis, differently from traditional common variance analysis, a brand could be authentic with a higher level of nostalgia with no simplicity associated to it.
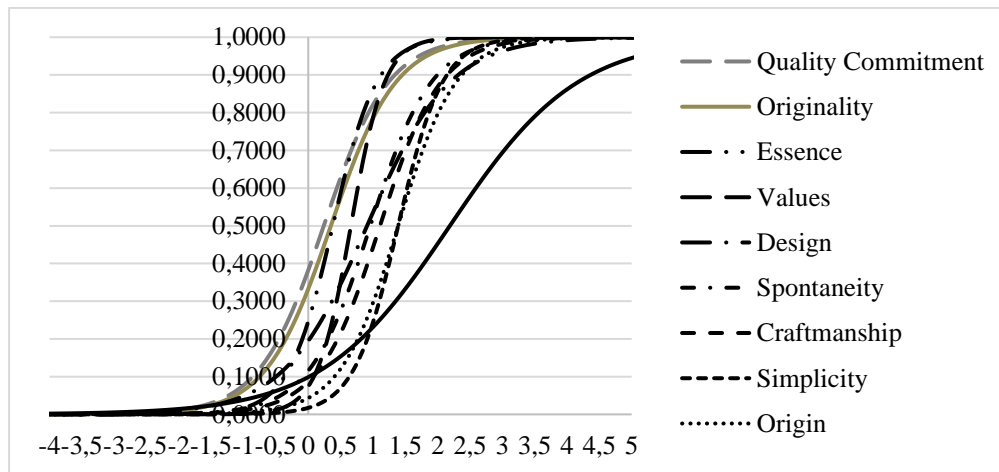
Figure 1 - ICC curves for Authenticity Dimensions

Conclusions

The specific goal of this paper was to establish critical dimensions of brand authenticity in order to develop a scale. Based on existing literature, in qualitative research and fieldwork, it was evident that 09 factors are paramount in evaluating authenticity of a brand. They are: spontaneity (05 items); quality (04 items); essence (04 items); nostalgia (04 items); values (04 items); simplicity (03 items); design (03 items); origin (03 items) and originality (02 items). These dimensions are organized in a hierarchical structure that permits the evaluation of authenticity combining them even though some items are not associated to a brand. That means, the IRT model allows analyzing the specific sources of authenticity of each brand.

This research contributes to the understanding of the construct brand authenticity to address its conceptual associations and establish a parsimonious concept. In addition, so far, most studies dealing with brand authenticity are qualitative (Beverland & Farrelly, 2010; Kolar et al., 2010; Leigh et al., 2006; Thompson, Rindfliesch, & Arsel, 2006). Second, when comparing this paper to the ones available in the literature (Bruhn et al., 2012; Morhart et al., 2015; Napoli et al., 2013; Schallehn et al., 2014) is clear to notice that there is a new grouping of 09 dimensions which can be considered hierarchically critical for the measurement of brand authenticity.

It is important to emphasize that although the methodology adopted is consistent with the objectives of this research, there are limitations arising from this choice and, consequently, implications in the results. The choice of the electronic survey, although it brings advantages in the sense of ease of data processing, does not allow a high rate of adherence through the respondents. It was necessary to insist on a reasonable number of responses.

Future avenues of research may also validate the scale in countries other than Brazil and the United States. In addition, the scale can be tested in other product categories and with different brands. Furthermore, there could be a comparison between brands of tangible and intangible goods. Also, the financial performance of brands based on their degree of authenticity could be assessed. It is possible to develop several other researches based on questions that emerged from this paper.

A brand, when knowing its degree of authenticity, can use it as a core component of its position and contribute to its growth. In addition, the scale can be used to track changes in brand awareness in the implementation of any marketing action and can also be used to monitor and evaluate competitors, over time, in terms of its authenticity (Bruhn et al., 2013).

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