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# An Application of the Personification Approach in the Country **Image Study**

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ABSTRACT: The effects resulting from the information about the products and services' country of origin are directly affected by the image buyers have towards the country. This paper aims to verify which country image dimensions can be observed in a study about China's image, through the application of the multidimensional scale developed by Nebenzahl, Jaffe and Usunier (2003). A sample of Brazilian executives was used in a descriptive and quantitative research, with data collected by survey. By means of the exploratory factor analysis, three country image dimensions were extracted, named as "Underdog", "Quality and Satisfaction Seeker" and "Economic Value Seeker", being consistent with the original work of Nebenzahl, Jaffe and Usunier (2003). Moreover, it was verified that the image respondents have of Chinese electronic household products is negative, both for respondents that are familiar with the country and for respondents less knowledgeable about China.

**Keywords:** country image; country-of-origin effect; personification; consumer behavior; international marketing.

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#### 1. INTRODUCTION

he image of a country influences the consumers' evaluation of the products originating from such country, generating the fact known as "country of origin effect". In general, the country of origin effect refers to the influence the information about the country of origin causes to the acts and behavior in relation to a product ortrademark.

For Wang & Lamb (1983) and Agbonifoh & Elimimian (1999), such effect may be considered as a barrier for the entry of new products in the markets. The negative tendencies the consumers have in relation to imported products.

Studies on the country or origin effect have tried to identify processes that may help explain how the country of origin influences the evaluation of a product. The concept "country of origin" is developed from the idea that people have stereotyped evaluations in relation to other persons and countries and, consequently, the products manufactured in such countries (BALABANIS; MUELLER; MELEWAR, 1999).

The stereotypes the consumer has on countries and people may transcend the evaluation of specific marks and products and determine, to a certain point, the purchasing intentions and the behavior of individuals. Therefore, according to Pharr (2005), the decades of studies on the subject lead to an apparently certain conclusion: the country of origin of a product may influence the consumers' evaluations in relation to such product.

Note that, while there seems to be a consensus on the fact that the image of the country of origin actually exercised an impact on the evaluation of the products, there is, at the same time, a constant debate on the magnitude of the effect (particularly in the presence of other intrinsic and extrinsic information in relation to the product) and on the environmental and cultural factors that may facilitate or inhibit the believe in the country of origin.

The characteristics of the consumer that may influence the country of origin effect are: educational level and conservativeness, age and sex, fluency on the language of the country, quantity of tips on the product, need of cognition, motivation, level of involvement, familiarity with the mark and the culture (ANDERSON; CUNNINGHAM, 1972; BALABANIS; MUELLER; MELEWAR, 2002; CHAO; RAJENDRAN, 1993; JOHANSSON; DOUGLAS; NONAKA, 1985; MAHESWARAN, 1994; SCHAEFER, 1997; SHIMP; SHARMA, 1987; ZHANG, 1997). We must point out that the country of origin effect may vary depending on the country, the sampling method used and the products evaluated (MARTIN; EROGLU, 1993).

The variables related to the type/category of the product also have a role in the use of the country of origin as a criterion for the selection among alternatives (HESLOP; PAPADOPOULOS, 1993; PAPADOPOULOS, 1993). For example, the information on the country of origin is generally more efficient for agricultural products than for manufactured products, in view of the historic association between production and country of origin or area of origin (AGRAWAL; KAMAKARA, 1999). Besides, the degree of involvement of the consumer with the agricultural products is, in general, lower than that with the manufactured products, generating a stronger effect of the country of origin in the evaluation of the agricultural products.

Hsieh (2004) studies indicate that the level of market development (defined as the availability in international marks) may exercise am impact on the country of origin effect. It should be weaker in highly developed markets than in the less developed markets, since the companies tend to develop more differentiated product when the market development level is high. In more developed markets the information on the products is more easily made available and the consumers tend have more confidence in information inherent to the

product. On the other hand, in less developed markets, the country of origin plays a more important role when little information on the products in available.

We verify, therefore, that the effects deriving from information about the country of origin are directly affected by the country image (AYROSA, 2000). Many approaches have been used to evaluate the image of a country, using unidimensional and multidimensional approaches to measure the concept. Recently, Nebenzahl, Jaffe and Usunier (2003) developed a scale to evaluate country images based on the mental reference structure of the consumer, and not on the researcher references, under an approach called "personification".

In this context, this article aims to verify which country image dimensions are observed in a study on the image of China. For such purpose, the Nebenzahl, Jaffe and Usunier (2003) scale was used in a sample of Brazilian consumers, in a manner to examine its applicability in a country that is less developed than those used in the research conducted by the mentioned authors for the development of the scale (United States, Canada, France, Israel and Mexico). The country chosen to be evaluated was China, because it is an important commercial partner for Brazil and due to its increasing importance in the international scenario.

According to data published by the Brazilian Federal Revenue (2008), China was third place in the ranking of the Brazilian exportation destinations in 2006, a year when Brazil exported US\$ 7.8 billion to China. According to the Brazilian Federal Revenue China third position as destination of the Brazilian exportations was kept in 2007, considering data relating to October 2007. On the other hand, China exported to Brazil US\$ 3.4 billion in 2006, the sixth country in the ranking of countries exploring products to Brazil. In 2007, until the month of October, China still held such position.

However, despite the increasing importance of China in the international trading, the country image has not been investigated in many international studies. For Kaynak and Kara (2002), notwithstanding the growing interest in studying the consumers' behavior in an international environment, there are few studies on the perceptions and evaluations of consumers in countries under development and emerging economies, like the Brazilian and the Chinese. Also, note that there are few studies involving the evaluation of China's image in other countries, among which we mention the studies by Kaynak and Kara (2002), Ahmed, d'Astous and Champagne (2005) and the research conducted by the Global Market Insite (2005).

Below, we present the concepts relating to county images (definitions and form of measurement). Then we present the personification approach by Nebenzahl, Jaffe and Usunier (2003) to evaluate the image of countries. The methodological aspects of the field research are then presented, as well as the results and conclusions of the study.

## 2. COUNTRY IMAGES

According to Verlegh and Steenkamp (1999), besides being a cognitive clue of the quality of a product, the country of origin also refers to emotions, identity, pride and autobiographic memories. Such symbolic and emotional connotations change the country of origin into an attribute of image, which has proved to be a significant determination aspect of the consumers' preferences and an important source of mark value.

For Verlegh, Althuijzen and Vroegh (1999), the stereotypes on a country comprise a series of beliefs in relation to the landscape, culture and economy. Examples are "Spain is sunny", "England is traditional" and "Japanese are efficient". Together, such beliefs form a complex mental structure that allows the consumer to make inferences on the attributes of the products, or to conduct a first evaluation of its performance. Therefore, the authors' concept

on the stereotypes of a country includes three dimensions: social-economic structure, culture and geography.

The social-economic structure is defined as an inter-relation Standard between the elements of a social system. For Verlegh, Althuijzen and Vroegh (1999), the sociologists describe this structure by means of parameters such as development, wealth, political power, industrialization and prestige. The geographic dimension involves the perceptions of climate, landscape and environmental aspects. Finally, the cultural dimension refers to the forms by which the members of a group differ from the members of another.

Recent studies used a multidimensional structure to measure the national stereotypes. The two dimensions of this concept are "morality" and "competence". Morality refer to traces like "friendly" and "tolerant", while competence refers to traces like "creative" and "intelligent" (VERLEGH; ALTHUIJZEN; VROEGH, 1999).

For Ayrosa (2000), the definition of country image has not been clearly defined in literature on the country of origin effect, and many authors confuse the concepts of country image and the image of the products it manufactures. An example of this misunderstanding is the definition by Han (1988), which considers the image of the country as being the difference in quality noted between the domestic and foreign products.

Accordingly, Nagashima (1970), the first author to specifically define the concept of country image, described the image of a country as the representation, reputation and stereotype businessmen and the consumers associate to the products of a specific country. This image is created by variables such as: representative products, national characteristics, economic and political panorama, history and traditions.

For Papadopoulos (1993), o term "image of a country" defines the image of a country and the thoughts created by such images in the minds of the consumers. Accordingly, Verlegh and Steenkamp (1999) indicate that the image of a country refers to mental representations about the persons, products, culture and national symbols of such country. According to the authors, the country images include cultural stereotypes broadly shared, that persist even when the consumers actually try the products of the country.

The images of countries alto contain general impressions in relation to the countries, the idiosyncratic beliefs about the products of such country, which the consumers formed based in direct or indirect experiences with the product. Under this same line of thoughts, Jaffe and Nebenzahl (2001) define the image of a country as a mental representation the individuals have of such country.

Since the country of origin may act like a stereotype (NAGASHIMA, 1970), it may either reflect the mental representations of reality, or it may not correspond to reality, being the result of "illusory associations" or the process of incorrect inferences (BALABANIS; MUELLER; MELEWAR, 1999).

Jaffe and Nebenzahl (2001) explain that the image of a country is influenced by the perception the individuals have of the people, the level of economic development, and the quality of the products. Below, we present a discussion on the dimensions of the image of a country and on the scales existing to measure such concept.

### 3. DIMENSIONS OF THE IMAGE OF COUNTRIES

For Jaffe and Nebenzahl (1984), the choice of an appropriate scale to measure the image of countries has been deeply investigated and reported in marketing and behavior literature. According to Roth and Romeo (1992), although the studies on the image of a country use different variables to evaluate such image, four elements are usually present in researches: innovation, design, prestige and finishing. The innovation refers to the inclusion of

new Technologies and engineering advances of a product. The design refers to the appearance, style, color and variety. The prestige considers the exclusivity, status and reputation of the product mark. Finally, the finishing refers to the level of confidence, durability and quality in the manufacturing of the products. We note that these elements refer to aspects related to the products of the country, and not to the characteristics of the subject country.

As an example of this form of measuring the image of a country mentioned by Roth and Romeo (1992), we have the study by Han (1990), which measured the image of the country by means of five items: technical advance, value of prestige, finishing of the products, price and durability. We note, therefore, that the data by Roth and Romeo (1992) and by Han (1990) suggest that the image of the country of origin is a unidimensional concept, referring only to aspects relating to the products, and not multidimensional, including other elements.

However, according to Jaffe and Nebenzahl (2001), the concept of image of a country is not unidimensional. Due to this characteristic, it is important to investigate, find out and measure all the dimensions subjacent to the concept. In this aspect, some studies conducted after 1992 considered the image of the country of origin as a multidimensional concept, being the focus transferred from the product to the country (AYROSA, 1998).

Also, Jaffe and Nebenzahl (2001) believe that other mistakes in researches on the image of countries are: to consider the image of a country as being independent from the image of the products and to consider the image of the country as being a static phenomenon. For the authors, the image of a country affects the image of its products and, at its turn, the experience with products changes the image of the country.

In relation to the multidimensional aspect of the image of countries, Martin and Eroglu (1993), worked on three dimensions: political, economic and technologic. A fourth dimension was thought of, social attractiveness, but it was not identified in the results of the research. The three dimensions scale by Martin and Eroglu (1993) seems to be more directed to the profile and country government actions. Items such as "free market / centrally planned system", "high / low labor costs" and "exporter / importer of agricultural products" may be a strong evaluation characteristic for some respondents (like for the Americans), but may be interpreted otherwise by respondents in other countries (like the Brazilians).

At their turn, Pisharodi and Parameswaran (1992) developed their work to measure the image of a country in three groups of items, each one with its own dimensions. The first group, named "general attributes of the country", aims to capture the general attitudes the respondents have in relation to a country, in a general manner. The second group of items, "general attributes of the product", aims to capture the attitudes in relation to the general characteristics of the products manufactured in the country under study, including aspects relating to advertising and distribution. A third group of items used, named "specific attributes of the product", aims to capture the attitudes in relation to specific products of the subject country.

In his work, Ayrosa (1998, 2002) used a scale to measure the image of the country of origin based on the Pisharodi and Parameswaran (1992) scale. The main differences between the two scales are:

- a) The terms of the questions were adapted to the Brazilian Portuguese language and changed into complete sentences. Then, the respondents would express their opinion on a complete sentence and not on an isolated term;
- b) The dimensional scale by Pisharodi and Parameswaran (1992) was not considered by Ayrosa (1998, 2002) in his work, leading to the change of some terms;
- c) Questions were included to capture aspects that were typical not only for developed countries or those directly related to high technology;
- d) Ouestions were included to capture the affectionate answer related to countries.

The dimensions resulting from the works of Ayrosa (1998, 2002) are different from those observed by Pisharodi and Parameswaran (1992). In the first study four dimensions were extracted: aspects relating to the people and the products of such country, emotional answer relating to the country, attitudes relating to arts and attitudes relating to marketing aspects.

The second study reports adjustments and improvements to the first scale by Ayrosa (1998), with the rewriting of three questionnaire items. This second study identified five dimensions relating to the image of the country of origin, that is, the four dimensions extracted in 1998, plus the dimension "importance to the global community".

When compared to the Pisharodi and Parameswaran scale (1992), which served as basis for the study, the Ayrosa scale (2002) is completely new. Ayrosa work (2002) demonstrates that his scale presents a sound dimensional structure and internal consistence. The author indicated that, to continue the work for the validation of the developed scale, it would be necessary to test the configuration of 15 items in a broader variety of countries.

Towards this direction, the work conducted by Giraldi (2005) used the scale by Ayrosa (2002) in a research with Dutch university students about the image they had on Brazil and some Brazilian products. The dimensions found were named by the author as follows: evaluation of the products, evaluation of arts, respect and importance of Brazil, evaluation of the communication and distribution and affection towards Brazil, being, therefore, consistent with the dimensions obtained by Ayrosa (2002).

#### 4. THE PERSONIFICATION APPROACH

As mentioned earlier under this work, Nebenzahl, Jaffe and Usunier (2003) developed a scale to evaluate images of country, based on the mental reference structure of the consumer, and not of the researcher, in an approach named "personification". Under their research, the authors asked the following question to the consumers: "A person who buys electric home appliances manufactured in [name of country] is ...", where [name of country] represents the country which image was evaluated.

When asking the respondents to describe the person who buys a product manufactured in a certain country, instead of describing the product itself, the answer obtained is associated to attitude, behavior, social and personality concepts of the buyer. Therefore, the methodology used facilitates the identification of the perception dimensions used by the consumer to evaluate products (NEBENZAHL; JAFFE; USUNIER, 2003).

We should clarify that the scale proposed by Nebenzahl, Jaffe and Usunier (2003) was developed in three stages. In the first stage the consumers should describe the electronic products manufactured in their countries and the type of person that could buy them when manufactured in other countries. The objective was to know the dimensions used by the consumers to evaluate countries and, thus, to obtain a list of questions that could be used in researches on the image of countries.

To reveal the structure of consumers' references, open questions and the projective technique of third person were used. The initial study had 2,347 valid questionnaires applied in the United States, France and Israel, and resulted 64 items. Note that the majority of the items identified by Nebenzahl, Jaffe and Usunier (2003) had not been used in studies on image of countries conducted by other authors.

In the second stage of the study, the 64 items of evaluation were included in the questionnaires applied in France, Mexico and Israel. Mexico substituted the United States in this phase of the research, so that data would be collected on a less developed country, in comparison with France and Israel. The objective of this phase was to purify the 64 items identified in the first stage of the study. Using statistical techniques, among which the factorial

analysis, the list of items was reduced to 30 elements (NEBENZAHL; JAFFE; USUNIER, 2003).

To guarantee the trust ability and validity of the 30 items scale, the same was applied in questionnaires applied in Canada, France and Israel (third stage of the study). As a result, four significant dimensions were obtained, representing different profiles of personality that are related to persons who buy products from other countries: "Search for Quality and Satisfaction", "Misfortune", "Search for Economic Value" and "Chauvinist". In this case the dimension "Chauvinist" represents the consumers that prefer products manufactured in their own countries of origin. However, the dimension "Chauvinist" was not considered to be trustable or valid, since the Word has different meanings in Canada, in France and in Israel, and was not included in the final scale by Nebenzahl, Jaffe and Usunier (2003).

The study by Nebenzahl, Jaffe and Usunier (2003) showed that the scale proposed by the authors is a trustable interval scale, which consistency was evaluated by the alpha coefficient, presenting values above 0.9. The scale is formed by 27 items, and was used in the empiric part of this work. According to the authors of the scale, it can be used to evaluate and compare the images of different countries. Since the scale describes a person who buys products manufactured in a certain country, and the country of origin is the only information supplied to the respondents, all the attributes are reflected in the products manufactured in the country. This way, the scale captures not only the evaluative dimensions, but also the social and emotional dimensions the consumers attribute to such products.

#### 5. METHODOLOGICAL ASPECTS TO THE FIELD RESEARCH

The object of the present research is to verify which image of the country dimensions are observed in a study on the image of China, by the use of the personification scale by Nebenzahl, Jaffe and Usunier (2003) in a sampling of Brazilian consumers, as a manner to verify its applicability in Brazil. It is then up t the empiric research of this study to describe a population in terms of image they have of China and of the products manufactured in that country, which characterizes it as a descriptive research. For Churchill (1991), a descriptive study has the presupposition of a substantial previous knowledge on the phenomena researched, and it may be conducted to verify beliefs, attitudes and opinions on products characteristics, as well as to verify the degree o association between certain variables.

To collect the information necessary to reach the proposed object, the simple transversal method was used (also known as raising or "survey"), which involves the collection of information from a determined sampling only one time (MALHOTRA, 1996). Since the type of research adequate to the subject of this research was identified as descriptive, it is not characterized as a quantitative research.

This research used the scale proposed by Nebenzahl, Jaffe and Usunier (2003). So, the evaluations the respondents to this study have on the persons who buy products manufactured in China, characterize the Chinese products. The research respondents were asked to evaluate their degree of agreement with the sentences that describe the Chinese electric home appliances and the persons who buy the Chinese electric home appliances. The electric home appliances were chosen because it was necessary to define the category of product to be analyzed, since the country of origin effect varies in accordance with the category of the product (D'ASTOUS; AHMED, 1999, NEBENZAHL; JAFFE; USUNIER, 2003).

The consumers' evaluations of the Chinese electric home appliances and on the persons who buy such products were collected by means of grades, from one to nine, in accordance with the level of agreement of the respondents with each sentence. Note that in the statistical analysis, the items holding negative meaning had their value inverted, so that all the

questions would have the same sense. Also, since there is no absolute zero in the scale, no conclusions can be reached on the absolute magnitude of the measurement (MALHOTRA, 1996; MATTAR, 1996).

When requesting the respondents to grant numbers to the evaluations on the Chinese electric home appliances and on the persons who buy such products, we tried to obtain a quantitative evaluation of the image of the country, assuming that the opinions of the respondents are given in accordance with an interval scale. The answers obtained are associated to the attitude, behavior, social and personality concepts of the buyer (NEBENZAHL; JAFFE; USUNIER, 2003).

In relation to the population of this research, it was defined as officers in the areas of Administration and Marketing, graduate in MBA courses in institutions of the State of São Paulo. The total of elements, considering the three institutions selected for this research (one located in the city of São Paulo, another in Ribeirão Preto and another in São Carlos), is of around 3,000 students. The population was so defined because this group of officers in an interesting segment for the companies, since it is characterized as potential buyers of the foreign products, including Chinese origin products.

Besides, as shown by the research conducted by Verlegh and Steenkamp (1999), the size of the country of origin effect is not different among studies that use students sampling and studies that user consumers sampling in general. The sampling structure used to represent the elements of the population of the research was a list of electronic addresses of the officers, supplied by the institutions participating in the study. The period considered for the data collecting was the months of July and August 2006.

For this research, a non-probable sampling was used (AAKER; DAY, 1983), being the elements chosen by convenience criteria. As there was the facility of inviting all the population elements by e-mail, added to the uncertainty in relation to the level of responses, we chose to send invitation to all the elements in a manner that they all had the opportunity to participate in the research. However, we did not expect that they would all respond to the research, characterizing it as a census.

Note that, since the sampling elements were not chosen in random, there is no way to evaluate the sampling error (CHURCHILL, 1991). Therefore, without knowing the error that can be attributed to the sampling procedures, it is not possible to place limits to the precision of the estimates.

The option of this field research for the collection of data by means of a self-administrated questionnaire in electronic form was due to the plasticity of the method. The questionnaire was placed in an Internet site to which the respondents were directed by means f a *link* placed in an e-mail invitation, sent by the secretariat of the courses. The invitation was enforced by the curses professors.

#### 6. RESULTS

Initially an azalysis is conducted on the sampling used, in a manner to characterize the respondents of the research. A total of 201 answers were received, which corresponds to an answering rate of 6.7%, considering the total population of around a total population of 3,000 elements. In relation to the profile of the sampling, the average age of the respondents is of 36 years of age, with a standard deviation of 8.5 years. The youngest respondent was 21 years old, and the oldest was 61 years old. The majority of the participants are of the male sex (68.2%).

As to the education degree of the research individuals, the majority of them are graduated in the courses of Engineering (27.6%), followed by Business Administration (27%)

and Publicity and Advertising (5.7%). Also, we noticed that the position of commercial manager is the most frequent among the respondents, with 20.5% of the individuals occupying such position. The position of director is the next most frequent (14.0%).

The level of knowledge the respondents had in relation to China, target country of the present study was verified. The majority of the respondents had some knowledge about China: only 1.5% of the participants in the research stated to know nothing about the country, while 82.6% have already read about the country, 60.2% have heard about it and 29.4% state to know some Chinese citizens. Besides, in a scale of knowledge in five points (1 representing "I know very well" and 5 representing "I know nothing"), an average of 3.08 was obtained, close to the intermediate value of the scale (equal to 3).

The present research aims the reduction of data relating to the questions on the image of China, by means of an exploratory factorial analysis, in a manner to compare with the dimensions resulting from the study by Nebenzahl, Jaffe and Usunier (2003). In relation to the critical suppositions necessary to the conduction of the factorial analysis, a Barlett spheroid test was conducted to determine the adequacy of this technique.

Also, to reassure the adjustment of the data to the factorial analysis, we also used the test by Kaiser-Meyer-Olkin (KMO). The results of the tests showed that the data is adequate for the treatment by the factorial analysis, since the correlation between the variables is significant. Besides, the value of the KMO test for the factorial analysis was equal to 0,842. This result can be considered excellent, in accordance with Hair *et al.* (1995) and Malhotra (1996).

The extraction method used in the factorial l analysis of this research was the analysis of the main components with Varimax rotation. Initially, the criteria for the extraction of the factors was that of *eigenvalues* higher than 1. Under this criterion, 7 factors were obtained, which explain, together, 62.68% of the total variance of the elements. However, three factors had few elements (two or three) and four factors explained, each one, less than 5% of the total variance. Besides, a test of the "screen plot" indicated that, after the third factor, the solution stops being excellent. Therefore, a solution containing fewer factors was forced, stipulating a minimum of 5% of the total variance for each factor and at least four variables per factor.

The solution that reached the above criteria was one of three factors, similar to the results of the study by Nebenzahl, Jaffe and Usunier (2003). In this case, the three factors explain 46% of the total variance of elements. Table 1 presents the rotated matrix of components. Table 1 omitted the values of factor charges under 0.30, in order to facilitate its reading.

**Table 1 – Rotated Components Matrix** 

Variables	Factorial Charges		
	1	2	3
A low economic class individual	00,761		
A stupid and silly individual	00,754		
A poor individual	00,707		
An individual who does not think, is precipitated and	00,662		
ingenuous			
An individual mistaken in the choice of the product	00,620		
An individual who will not be satisfied	00,608	00,340	
An individual who does not understand about the product	00,598	00,350	
Avarious, hard fisted	00,574		
An individual who is under extortion	00,566		
An individual who does not care for quality	00,551		00,340
An individual who is doing good business		00,764	
An individual who did the right choice of the product		00,763	

Table 1 – Rotated Components Matrix (continued...)

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An individual who will be satisfied	00,678	
Products the friends would buy	00,629	
The individual is making the best choice	00,623	
High quality products	00,571	00,401
An individual who understands about the product	00,556	
An individual who is concerned with quality	00,509	00,509
Products I like	00,462	00,321
Expensive products		00,688
An individual who is buying a good, but expensive		00,679
product		
Cheap products		00,638
A high price in exchange for good quality		00,594
An individual who looks for high quality	00,363	00,585
An individual who looks for known marks	ŕ	00,499
Products I would be proud in showing to my friends		00,481
An individual who likes to take risks		00,391

We see in Table 1 that the variable "Concern on quality" charges the same intensity of in two different factors (0.509). So, this variable was not considered in the analysis. Also, the variable "Likes to take risks" has a weak relation with the factors, showing a factorial charge of only 0.391 in Factor 3. So, this variable was not considered in the analysis.

Afterwards, the trust ability of the result was evaluated on the result found, which is the average of the consistency between multiple measurements of a variable (HAIR *et al.*, 1995). The reasoning subjacent to the internal consistency is that the individual items of a scale should measure the same concept and, therefore, be highly interrelated. In this research, the internal consistency was evaluated by the Cronbach alpha, being each factor obtained by the factorial analysis submitted to the trust ability analysis. According to Hair *et al.* (1995), the lower limit for the Cronbach alpha is of 0.70, although it may come down to 0.60 in exploratory researches.

Factor 1 is formed by tem variables, explains 25.99% of the total variance of the elements and has an internal consistency, in accordance with the alpha coefficient, equal to 0.852. So, such factor may be considered trustable. There is no improvement in the internal consistency, while some items are excluded from Factor 1. Note that the composition of this factor is exactly the same of the dimension named by Nebenzahl, Jaffe and Usunier (2003) as "Misfortune", or "*Underdog*" in the original English. Only the variable "Likes to take risks" is not included in Factor 1 of this research, but is was not considered in the analysis due to not strongly charging in any factor. This way, Factor 1 is also named "Misfortune".

Factor 2 is formed by eight variables (already excluded the variable "Concern with quality"), explaining 13.05% of the total variance. The value of the alpha coefficient is equal to 0.83, causing the factor to be considered trustable. When comparing the elements of Factor 2 with the dimension "Search for Quality and Satisfaction" by Nebenzahl, Jaffe and Usunier (2003), we note that the composition of the factors is almost the same; only the variables "Search for quality" and "Products I would be proud to show to my friends" would be missing and that, in this research, are part of Factor 3. Due to the similarities between the dimensions found, Factor 2 shall also be named "Search for Quality and Satisfaction".

Finally, Factor 3 has seven variables (already excluded the variable "Likes to take risks"), explaining 6.55% of the total variance of the elements. This factor may be considered trustable due to presenting an alpha coefficient equal to 0.738. As explained n the previous paragraph, two variables that originally belonged to the "Search for Quality and Satisfaction" by Nebenzahl, Jaffe and Usunier (2003), are in this research part of Factor 3. However, all the

remaining variables are the same as the dimension named by Nebenzahl, Jaffe and Usunier (2003) "Search for Economic Value". Therefore, Factor 3 will also be so named.

To evaluate the image of China as of the dimensions identified in the research, it is necessary to create composed measures form the results of the factorial analysis. For Hair *et al.* (1995), the composed measures, as well as the factors scores, reduce the measuring error, since they use several indicators to evaluate one only concept. Besides, the authors indicate to be more adequate to use composed measures than factors scores when there is the intention of repeating the studies.

Under this research, the option was the creation of a composed measure, originated from the answers to matters forming the three mentioned factors. However, as there are different numbers of elements in each China image dimension (a dimension containing tem variables, one with eight and one with seven), the average of answers forming the mentioned factors were accounted for, using measuring scales with 9 points, from 1 to 9. The closest the grade to number one, the more the respondents agreed with the sentences and, consequently, the more positive would be the image associated to China.

Table 2 demonstrates the descriptive statistics for the three image dimensions obtained under this research. We can note that the respondents to the research believe that people who buy Chinese electric home appliances are more related to the dimension "Misfortune", since this was the dimension receiving higher scores near to 1 (which represented "I fully agree").

Therefore, individuals who buy Chinese electric home appliances are considered by the respondents to this research as being silly, having no knowledge on the products, having low purchasing conditions, are being fooled when buying the products and, therefore, will not be satisfied with such purchase.

Table 2 – Statistics describing the image dimension

	N	Minimum	Maximum	Average	Standard
Dimensions					Deviation
Misfortune	201	1,00	9,00	3,9701	1,41301
Search for Quality and Satisfaction	201	1,75	9,00	5,8290	1,25620
Search for Economic Value	201	2,43	9,00	7,3070	1,22055

Considering that the average point of the scale is equal to 5, we can conclude that the respondents for the study do not believe that the people who buy Chinese electric home appliances are persons looking for quality and satisfaction when buying (looking for the best choice), nor persons who look for economic values (looking for the obtainment of a good cost-benefit relation). The differences between the male and female answers in the database are not significant.

An important comparison is related to the differences in the evaluation of the image on China, depending on the familiarity of the consumers in relation to the country. So, the sampling was divided in accordance with the familiarity level of the participants in relation to China and the compared results. For such purpose the answers to the question "What is your level of knowledge on China" were used and standardized (scores Z). The answers to the zero value were coded as "familiar with China" and the other values as "non familiar with China". Under this transformation it was noticed that most of the respondents (72.6%) were considered to be familiar with China.

Table 3 shows that the respondents familiar with China have an even more negative image of the country, since the evaluation of the dimension "Misfortune" received scores even closer to value 1. However, it is necessary to point out that the respondents familiar with the

country, as well as those who are not familiar have a negative image of the Chinese home appliances.

Table 3 – Differences in the image of China according to familiarity

Familiarity with China		Non- wealthy	Search for Quality and Satisfaction	Search for Economic Value
Familiar with China	Average	3.95	5.78	7.35
	N	146	146	146
	Standard Deviation	1.37	1.21	1.20
Non familiar with China	Average	4.03	5.97	7.19
	N	55	55	55
	Standard Deviation	1.54	1.38	1.27

Then, one may conclude that the people in the sample who know more about China considered aspects on the recent development of the country economy, the quality and specialization of labor, when evaluating the products manufactured in the country, generating a negative evaluation of the Chinese made home appliances. In their turn, the individuals that are not familiar with the country may base the evaluations on the Chinese products on the stereotypes they have on the country, which includes a history products associated to low quality and, therefore, also evaluate the products in a negative manner.

#### 7. FINAL REMARKS

This research applied the scale by Nebenzahl, Jaffe and Usunier (2003) for a sample with Brazilian consumers, to obtain indications of its validity in the country. The country chosen for this research was China, because it is an important commercial partner for Brazil, and because it has presented an impressive economic growth in the last five years and an increasing integration in the world economy. The penetration of the manufactured products originated from China in the main world economies presently reaches significant levels, reflecting the strong comparative advantage in the production and assembling of assets where the cost of labor é a determining factor.

Despite China's growth in the international trading, this study demonstrated that the image the respondents have of the Chinese electronic house appliances is still negative, both for the respondents familiar with the country, and those who do not know much about China. Also, in a general manner, it its verified that there were similarities among the three dimensions of image of country derived from the sample used and those observed under the research conducted by Nebenzahl, Jaffe and Usunier (2003), which demonstrates a theoretical support to the empiric results of this study, and suggests that the scale may also be considered valid for application in Brazil. The resulting dimensions of this study were named as "Misfortune", "Search for Quality and Satisfaction" and "Search for Economic Value".

The results obtained confirm the studies on the image of countries when presenting the application in Brazil of a scale tested and validated in other countries (United States, France, Israel, Mexico and France). The personification approach used in this study is different from the others metric scales used to evaluate the image of countries, because it indirectly evaluates the image of countries, getting to identify perceptual dimensions used by the consumer to evaluate the products (which would not be easily identified if direct questions had been placed).

As a practical result of the findings by this research, it points that the Chinese companies that commercialize their products in Brazil may, based on the information presented, make important adjustments to their marketing programs. Therefore, Chinese companies interested in commercializing products in Brazil shall develop special communications programs in order to reduce the negative tendency consumers have in relation to Chinese products.

In relation to the methodological limitation of this study, we point out that the target population, which does not cover other important foreign purchasing segments, such as high wages professionals and consumers, residing in other areas of Brazil (and not only in the State of São Paulo).

Besides, the fact that a probability sample was not used made it impossible for the tests to turn out a significant statistic, in a manner to generalize the result to the investigated population. Therefore, the results found may be attributed only to the sample elements, and not to the research population.

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