



Revista Brasileira de Gestão de Negócios

ISSN: 1806-4892

gestnegocios@fecap.br

Fundação Escola de Comércio Álvares

Penteado

Brasil

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Revista Brasileira de Gestão de Negócios, vol. 18, núm. 59, enero-marzo, 2016, pp. 24-42

Fundação Escola de Comércio Álvares Penteado

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# Country image effect on product assessment: moderating role of consumer nationality

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**Received on**

04/26/2015

**Approved on**

04/04/2016

**Responsible editor:**

Prof. Dr. Guilherme de Farias  
Shiraishi

**Evaluation process:**

*Double Blind Review*

## Abstract

**Purpose** – This study investigates whether the magnitude of the effect of country image (CoI) on quality evaluation of foreign products varies across consumers from developed vs. from developing countries

**Design/methodology/approach** – French, Argentinean and Chilean consumers responded to an online survey. We employed a within-subjects design in order to examine associate differences in CoI with differences in quality assessment.

**Findings** – In agreement with previous studies, we found a positive effect of CoI on quality evaluations of foreign products. However, we found a non-significant moderating effect of consumer nationality, which contrasts with Hsieh (2004), who found that CoI effects were stronger for consumers from developing markets.

**Originality/value** – While several studies have investigated factors that would affect consumers' preference for domestic vs. foreign products, we took the relatively under-researched topic of whether there would be differences across consumers from developed vs. developing markets in the impact of country image on the evaluation of foreign products.

**Keywords** – Country-of-origin effect; country image effect; foreign product evaluation; nationality of the consumer; international marketing



**Review of Business  
Management**

DOI: 10.7819/rbgn.v18i59.2474

## 1 Introduction

In their mental process of evaluating products, consumers may take into consideration several signals. Information about intrinsic characteristics of the products (e.g., size, color, smell etc.) as well as about extrinsic aspects (e.g., type of sales channel, price, etc.) may all be considered (Maheswaran, 1994). When the decision involves foreign products, the country of origin (that is, the country where the product was, or thought to have been, produced) may be an important cue used by the consumer (Manrai, Lascu, & Manrai, 1998).

While several studies have already ascertained that the country-of-origin (CoO) influences the way consumers evaluate foreign products, more recent research has focused on understanding whether different component aspects of the country image (CoI) bear distinct impact on consumers' attitudes and behaviors towards foreign products. In addition, several studies have tried to disentangle the influences of CoI and the contingencies under which the effects tend to be stronger.

Several past studies have examined the impact of CoI on product quality assessment, the impact of the nationality of the consumer on CoI, the impact of nationality on preferences for domestic vs. foreign products (Batra, Ramaswamy, Alden, Steenkamp, & Ramachander, 2000; Ettenson, 1993; Gurhan-Canli & Maheswaran, 2000; Okechuku, & Onyemah, 1999; Reardon, Miller, Vida, & Kim, 2005; Sharma, Shimp, & Shin, 1995; Wang & Chen, 2004; Wang, & Yang, 2008; Watson, & Wright, 2000), the impact of nationality on preferences or attitudes towards certain classes of products and the direct impact of consumer's nationality on quality evaluation of foreign products. However, little research has been conducted on whether the nationality of the consumer can modify the size of the effect of CoI on quality evaluation of foreign products. Therefore, the objective of this study is to investigate whether the magnitude of the effect of country image (CoI) on quality evaluation of

foreign products varies across consumers from developed vs. from developing countries.

This study investigates whether the nationality of the consumer (i.e., from more developed vs. less developed country) affects the strength of the effect of CoI on the evaluation of quality of foreign products. In order to provide a better understanding of the state-of-the-art regarding the impact of the nationality of the consumer on the relationship between CoI and quality evaluation of foreign products, this review of the literature is organized in three related streams of research: (i) Conceptualization of country image (CoI) and direct impact of CoI on quality assessment of foreign products; (ii) Direct impact of the nationality of the consumer on the quality evaluation of foreign products; (iii) Moderating impact of the nationality of the consumer on the effect of CoI over quality evaluation foreign products.

The present study brings one main contribution to the academic literature: Deepen our understanding about the effect of CoI on consumers' quality evaluation of foreign products by investigating the moderating impact of the nationality of the consumer.

## 2 Theoretical background

(i) Conceptualization of country image (CoI) and direct impact of CoI on quality assessment of foreign products

The concept of country image (CoI) has emerged as an important construct in the study of CoO impacts. In fact, CoO research has evolved from the simple verification of the existence of an effect related to the national origin of products and the estimation of its magnitude to indeed incorporate more detailed conceptualization of the CoO construct – including the constituent dimensions of CoI and their respective impact on different aspects of consumers' responses towards foreign products (Roth, & Diamantopoulos, 2009).

Roth and Diamantopoulos (2009) strongly suggested that CoI should be conceptualized in terms of two main dimensions: cognitions and affections. *Cognitions* refer to informational beliefs about a country – such as degree of economic development, level of technological advancement, political regime and level of political maturity, legal systems, historical events, demographic and social traits, culture and traditions, geography, climate etc. – and also about characteristics of its people (e.g., competence, creativity, living standards and technical qualifications, among others). *Affections* refer to feelings and emotions towards a country.

(ii) Direct impact of the nationality of the consumer on the quality evaluation of *foreign* products

Some studies have investigated whether the evaluation of, or the preference for, foreign products may vary across nationalities of consumers, but they did not consider in particular the level of development of the consumer's country, which is our focal point.

For example, Amine and Shin (2002) argued that consumers tend to favor (products from) countries based on proximity and their knowledge of those countries. They also argued, and found empirical support for the fact, that the level of willingness to buy a product from a given foreign country varies across the nationality of the consumer. In their study, Thai students, when compared to American students, tended to present lower willingness to buy products (of a well-known Japanese brand) made in China as an alternative to products made in Japan. Note that this intended behavior may occur because Thai students might perceive China in a more negative way when compared to Japan than would Americans (i.e., a direct effect of nationality of the consumer on CoI coupled with a direct effect of CoI on willingness to buy) and not because of a moderating effect of the level of development of the respondent's country on the size of the association between CoI and quality evaluation.

Laroche, Papadopoulos, Heslop and Bergeron (2003) considered the effects of CoO at the sub-national level of consumers. They predicted that “subcultural differences between English and French Canadians [two sub-cultures in Canada] exist in the evaluation of culturally linked countries [Australia, Great Britain, Hong Kong, Israel and the US for English Canadians; and France for French Canadians] and their products” (Laroche et al, 2003, p. 241). They also found evidence that there was virtually no difference in the two groups' perception about Germany, Japan and Mexico, that is, countries not culturally linked to Canada. They concluded, “As with English Canadians' more positive assessment of Great Britain and British products, French Canadians gave significantly higher overall mean scores to France and its products than their English counterparts” (Laroche et al., 2003, p. 239). Similarly, they predicted that “English Canadians would exhibit more positive attitudes towards Great Britain's former colonies of Hong Kong and Australia than would French Canadians” (Laroche et al, 2003, p. 239) and that “English Canadians would give higher ratings to the USA and its products than would French Canadians” (Laroche et al, 2003, p. 240). Thus, their study investigated the possible existence of differences in perceptions of foreign country images and in the respective assessments of foreign products across consumers of different sub-cultures of a country. The authors did not, however, examine whether the magnitude of the effect of CoI on quality evaluations may vary across subnational cultures.

(iii) Moderating impact of the nationality of the consumer on the effect of CoI over quality evaluation of *foreign* products

It has been argued that consumers from developing countries tend to put more emphasis on CoO and CoI than consumers from more developed countries. Given that several (currently) developing countries imposed severe restrictions on imports in the past, their consumers may not have acquired as much familiarity or experience

with foreign products as consumers from developed countries; as such, CoO (in general) or CoI aspects (in particular) might be a more important cue for the former than for the latter. The level of familiarity a consumer has with a product category from a foreign country may affect the impact of CoI on quality evaluation. Cattin, Jolibert and Lohnes (1982), Han (1989), Josiassen, Lukas and Whitwell (2008) and Rao and Monroe (1989) argued that the impact of CoI tends to be stronger when the consumer has less familiarity with, or less prior knowledge of, the product. In these circumstances, information about the country of origin would work as a halo effect (Han, 1989), that is, it would substitute for, and somehow summarize, information about product attributes. On the other hand, if consumers have enough experience with a given product category from a foreign country, they may use this past experience to infer the attributes of other products of similar categories from that same country without the need to explicitly consider CoI aspects (Johansson, Douglas, & Nonaka, 1985).

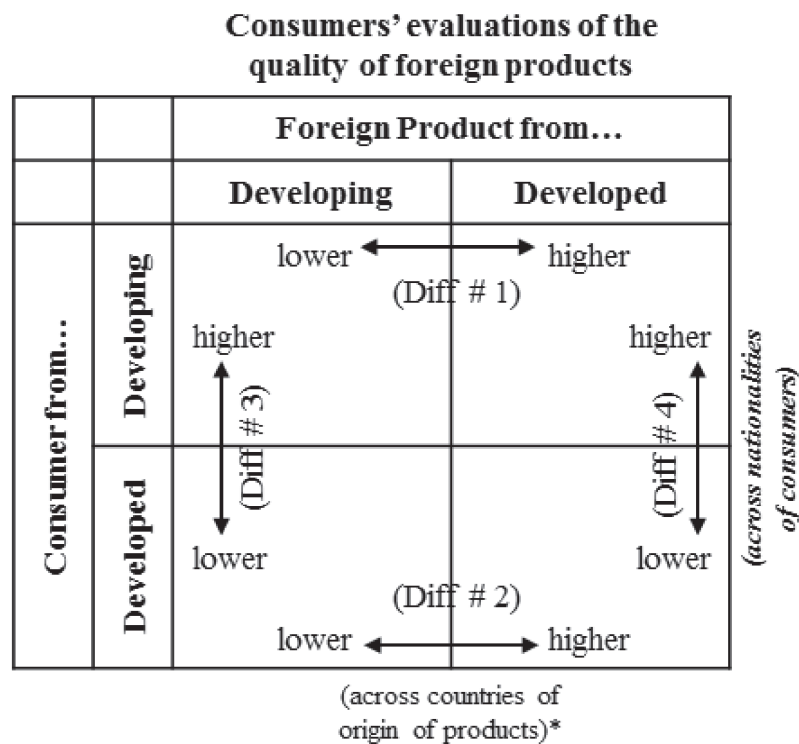
Also and Hsieh (2004) found evidence that the nationality of the consumer may affect the magnitude of CoI effects on purchase behavior; CoI effects were found to be weaker in highly developed markets (arguably because of greater availability of international brands) than in less developed markets. Hsieh (2004:271) argued that in highly developed markets “sufficient product attribute information is readily available” and “market players [would] tend to put more effort into product differentiations,” “while CoO information is likely to be treated as only one aspect.” The findings of the study indicate that “the relationships between favourable CoO and the brand purchased are strongest in less

developed markets such as China (5.97) and Russia (5.66), but weakest in the United States (0.24)” (Hsieh, 2004, p. 283) and that, “[a]t the national level, CoO effects seem to be more significant among nations where the availability of international automobile brands is lower” (Hsieh, 2004, p. 267).

From another perspective, Häubl (1996) found virtually no statistically significant differences in CoO effects across consumers from two developed countries (Germany and France), but they did not investigate the impact of CoO across consumers from developed vs. developing markets.

In a similar vein, prior research has indicated that consumers (both from developed markets as well as from developing countries) may present prejudice against products originated from less developed countries (*cf.* Good, & Huddleston, 1995; Javalgi, Cutler, & Winans, 2001) and will tend to perceive products originated from developed markets to be of higher quality when compared with those made in developing markets (Joiassen, & Harzing, 2008) – as represented by Diff # 1 and Diff # 2 in Figure 1. Additionally, such differential preferences may be more intense for consumers from developed markets (Sharma, 2011), that is, Diff # 2 would be greater than Diff # 1.

Also, Sharma (2011) found evidence of differences between developed markets vs. developing markets consumers in preferences for foreign products: “...the preference for products imported from developed markets is stronger for consumers in developing markets, whereas the negative perceptions of products imported from developing markets are stronger for consumers in developed markets” (p. 300), as represented by Diff # 4 and Diff # 3, respectively, in Figure 1.



\* note: comparison with domestic products is not present in this figure

**Figure 1.** Consumers' evaluations of the quality of foreign products

Note: comparison with domestic products is not presented in this figure. Based on "Country of Origin Effects in Developed and Emerging Markets: Exploring the contrasting roles of materialism and value consciousness", P. Sharma, 2011, *Journal of International Business Studies*, 42, 285-306.

However, such state of affairs may be changing. Reduction of trade barriers, lower costs of transportation and easier access to information have (i) exposed consumers from developing markets to a greater variety of products (especially foreign), thus increasing their awareness and familiarity with these products (Usunier, 2006) and (ii) increased standardization of customer tastes and cosmopolitan behavior (Usunier, 2006). Therefore, such consumers would have become more similar to their developed market counterparts. This is not to say that familiarity does not matter, but rather that there may be now less difference in the level of familiarity with foreign products across consumers from developed vs. from developing countries and, as a consequence, the potential moderating role of nationality may be less prominent.

Sharma (2011), nonetheless, contends that, "[d]espite growing evidence about differences in the attitudes and behaviors of consumers in developing and [vs.] developed markets, there is still little research on the differences in country of origin (CoO) effects on the evaluation, behavioral intentions (BIs), and actual purchase of imported goods" (p. 285).

This argument suggests that investigating the moderating role of nationality over the effect of CoI on quality evaluation is still warranted.

### 3 Study hypotheses

While a reasonable amount of research has investigated whether the association between CoO and consumers' responses (e.g., product evaluation or behavioral intentions), related



to the comparison between *domestic* vs. *foreign* products, might vary across consumers of different nationalities (e.g., from developed vs. developing markets), this study takes a different, seldom-researched, path: to investigate whether the nationality of the consumer moderates the effect of CoO (and, in particular, of facets of CoI) on consumers' responses (specifically, quality assessment) regarding comparisons of *foreign* products from two different countries.

Our main argument concerns the moderating role of the nationality of the consumer. However, in order to properly verify whether a moderating impact is in place, it is desirable to also verify whether there is a direct impact. Therefore, based on previous research that has generally suggested a positive impact of CoI on quality evaluation (*cf.* Peterson, & Jolibert, 1995; Verlegh, & Steenkamp, 1999), we present our first hypothesis:

**H<sub>1</sub>:** There is a positive association between country image and quality evaluation of foreign products.

Regarding the moderating impact of nationality over the effect of CoI on product quality assessment, two apparently contradictory arguments can be posed.

First, there is the argument related to less familiarity on the part of consumers from developing markets with imported products (Johansson et al. 1985) and the expected higher relevance that extrinsic cues – including CoI – would gain when consumers are less familiar with products and find it hard to “objectively” assess them (Cattin, Jolibert, & Lohnes, 1982; Dawar, & Parker, 1994; Han, 1989; Manrai et al., 1998; Rao & Monroe, 1989; Steenkamp, 1990). This argument suggests that, when comparing two otherwise similar foreign products, albeit originated from two different countries, a given level of difference in the perceptions of country images of those two countries would tend to lead to a higher difference in product quality evaluation in the case of consumers from developing markets

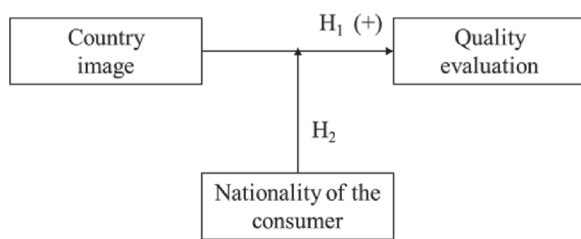
than in the case of consumers from developed markets.

Second, there is the argument that prejudice against products from developing countries (vs. those from developed countries) would be higher in the case of consumers from developed markets. This argument suggests that, when comparing two otherwise similar products, albeit originated from different foreign countries – one developed and the other developing – differences in perceptions of country images would tend to lead to higher differences in quality evaluation in the case of consumers from developed markets than in the case of consumers from developing markets. An alternative interpretation, however, would be that consumers from developed countries might evaluate less favorably the images of developing countries (than would consumers from other developing countries); and it would be this lower absolute perception of CoI (and, consequently, higher difference in the comparison of CoI of the two foreign countries) that would lead a consumer from a developed country to indicate lower product quality assessments for products from less developed markets. Note that this argument in fact means that CoI would *mediate* the impact of nationality of the consumer on product quality evaluation; it does not, however, relate to our main argument that nationality would *moderate* the impact of CoI on quality evaluation.

Thus, considering basically the first argument, and drawing from Hsieh's (2004) empirical results, we present our second hypothesis:

**H<sub>2</sub>:** The effect of country image on quality evaluation of foreign products is stronger for consumers from developing markets than for consumers from developed markets

This second hypothesis does not refer to absolute levels of foreign product quality evaluation, but rather to the magnitude of the association between differences in CoI perceptions and differences in quality evaluation. Figure 2 illustrates our conceptual model.



**Figure 2.** celure 1 - conceptula Conceptual Model

Source: Based on “An Investigation of Country-of-Origin Effect Using Correspondence Analysis: A cross-national context”, M.-H. Hsieh, 2004, *International Journal of Market Research*, 46, 267-295.

It is interesting to compare our hypotheses with those advanced by Sharma (2011). We argue that the magnitude of the effect of CoI is higher for consumers from developing markets vs. for consumers from developed markets. On the other hand, Sharma (2011) posited, and found empirical support for the argument, that (a) consumers in developing markets – compared with consumers from developed markets – would express more favorable product evaluations (in terms of quality, performance and value for money) for products originated from developed markets; and (b) consumers in developed markets – compared with consumers from developing markets – would express less favorable product evaluations for products originated from developing markets. However, these arguments rest on the assumption that there is variation, across nationalities of the consumers, in the perception of country images and, as a consequence, on absolute value of consumers’ preferences.

Our argument, on the other hand, is not about an absolute comparison of quality evaluation for products originated from developed vs. developing markets by consumers from developed vs. developing markets. We argue that there is an association between differences in CoI perceptions (comparing two foreign countries of origin) and differences in quality evaluation of respective foreign products; we also argue that differences in the images between two countries-of-origin would affect more intensely the comparative quality evaluations given by consumers from a developing market than those

expressed by consumers from a developed market.

It is also interesting to compare our arguments with those of Amine and Shin (2002), who argue that the “CoO effects are not absolute for a given country” (p.45). Their reasoning to explain variations in the effect of CoO, however, is not based on the argumentation about level of development of the consumer’s country, but rather based on proximity/distance (geographical or cultural) between the country of the product and the country of the consumer. They argue that consumers from a certain nationality may have a given image about a given foreign country and that there would be variations in the (absolute) image of a country across consumers of different nationalities (“perceptions of country-of-origin will vary by nationality of respondent [consumer]”, p. 47) and that, as a consequence, consumers’ responses would vary across nationalities (“[w]illingness to buy products bearing a given CoO label will vary by nationality of respondent [consumer]”, p. 47). While Amine and Shin (2002) only argue that there would be differences across nationalities of consumers in their assessment of (foreign) country images, they do not, however, estimate the size of the association between differences in perceptions of CoI and differences in quality assessments of foreign products; nor do they test whether this association would vary across nationalities of consumers, as we do in this study.

## 4 Methods

There are three main constructs in this study: country image (of the country-of-origin of the products), quality evaluation (of foreign product) and nationality (of the consumer), and three contextual critical choices: type of product and country-of-origin of the product and nationality of the consumers.

### 4.1 Type of product

Previous research suggests that the impact of CoO may vary across different classes of products (e.g., utilitarian vs. hedonic) (Eroglu,



& Machleit, 1989; Han, & Terpstra, 1998; Johansson, 1989; Kaynak, & Cavusgil, 1983; Maheswaran, 1994; Manrai et al., 1998; Witt, & Rao, 1992). To keep our argument simple and in order to not introduce an additional source of variation in the data, we decided to focus on a single product type (electrical home appliances) as an example of a broader class of industrialized utilitarian products.

## 4.2 I Country image

Roth and Diamantopoulos (2009) contended that country-of-origin (CoO) and, in particular, country image (CoI) are rather complex constructs – composed of several different types of information and perceptions – and that CoI would be better understood if one unpacked its constituent parts. Their suggestion is to consider two main “dimensions” of the construct: cognitions (informational beliefs about the characteristics of the country and its people, society, environment etc.) and affections (feelings and emotions about a country).

Previous research (Ittersum, Candel, & Meulenberg, 2003; Javalgi, Thomas, & Rao, 1992; Kempf, 1999; Roth, & Diamantopoulos, 2009; Verlegh, 2001; Wang, Barnes, & Ahn, 2012) suggests that different aspects of CoI (e.g. cognitions vs. affections) might bear different influences on consumers’ attitudes and responses to foreign products. We contend that differences in the magnitude of the effect of CoO would be better understood if one disentangles the distinct dimensions of CoI.

Given our choice of a single class of product and the particular illustrative product – electrical home appliances – which is acquired for utilitarian (not hedonic) reasons, we believe that the affective component of CoI will bear little influence on the consumers’ evaluation of that type of product. Therefore, we operationalized country image only in terms of the cognitive component, a decision that has the advantage of a simpler explanatory model.

There are, nonetheless, several aspects of cognitions about a country, such as degree of economic development, degree of technological advancement, political regime and level of political maturity, legal systems, historical events, demographic and social traits, culture and traditions, geography, climate, and also characteristics of its people (e.g., competence, creativity, living standards and technical qualifications), among others. The aspects that we believe could affect more the quality assessment of electrical home appliances are those related to technological advancement and the skills of the workers of the producing country. In this study, we chose to focus specifically on the human aspects of cognitions.

Several indicators can be found for human aspects, for example, educational level, whether people are hardworking, creative, friendly or pleasant, technical skill level of the workforce (Parameswaran, & Yaprak, 1987), characteristics related to kindness and reliability (Papadopoulos, Heslop, & Bamossy, 1994), competence and creativity (Verlegh, 2001), hardworking spirit and ethics (Heslop, Papadopoulos, Dowdles, Wall, & Compeau, 2004).

We specifically chose three indicators that would be expected to influence the quality of utilitarian products: workforce competence, workforce creativity, and workforce diligence.

## 4.3 Products’ countries-of-origin

We decided to choose two countries-of-origin (of products) which would (expectedly) be rather different in terms of cognitions (human aspects). The two focal countries-of-origin chosen were Brazil and Germany. Thus, our study compares products – one from a developed and another from a developing country.

Although one might argue that only one country-of-origin would be necessary to test the hypotheses (including the moderation), we chose to use two countries of origin in order to be able to apply a within-subjects (vs. between-subjects) approach, as will be explained below.

#### 4.4 Quality evaluation as the dependent variable

The different reactions of consumers to foreign products might include quality evaluation, willingness to buy, purchase intention, attitude towards the product, etc.

It is important to distinguish the impact of CoI or of CoO on quality assessment vs. the impact on willingness to buy / purchase intention. While the latter may be subject to influence from several potential determinants (e.g., price, ethnocentric concerns and related perceived consequences of buying foreign products), quality assessment, on the other hand, would seem to be less subject to such external influences. Therefore, we chose quality evaluation as the dependent variable for this study; the variable was operationalized by means of two items: efficiency / durability, and expected satisfaction with the product (if subsequently bought).

#### 4.5 Consumers' nationality

As for the nationality of consumers, it was important that they not show strong favorable or antagonistic predispositions towards those two countries of origin or to their products. In addition, it would be advisable to choose nations whose consumers are not too ethnocentric (if at all), at least regarding the particular class of product to be assessed or the particular countries-of-origin chosen. For reasons of personal

relationships of the researchers, we chose France (a developed country) and Argentina/Chile (pooled together to represent a developing country) to collect data. French consumers were acceptable since they would be expected not to show clear rejection or preference based on normative aspects of what is right or wrong, moral or immoral regarding the particular focal countries-of-origin of the products. Besides, French consumers are expected to have sufficient experience with the particular types of product (although not necessarily from the particular countries-of-origin chosen for this study) and also are expected to have some preliminary (at least) idea about the cognitive aspects related to those countries, so that they will be able to provide answers about their perceptions of those countries of origin. The same arguments apply to the selection of consumers from Argentina/Chile. Since the samples obtained from Argentina / Chile were small, we decided to pool them together. This aggregation of samples is justified from a cultural cluster perspective: Argentina and Chile were assigned to the same cultural cluster in three studies reviewed by Ronen and Shenkar (1985). Moreover, the two countries-of-origin (Brazil and Germany) and the two countries of nationality of consumers (France and pooled Argentina/Chile) were classified in four different cultural clusters (Ronen & Shenkar, 1985).

The operational model of this study is illustrated in Figure 3.

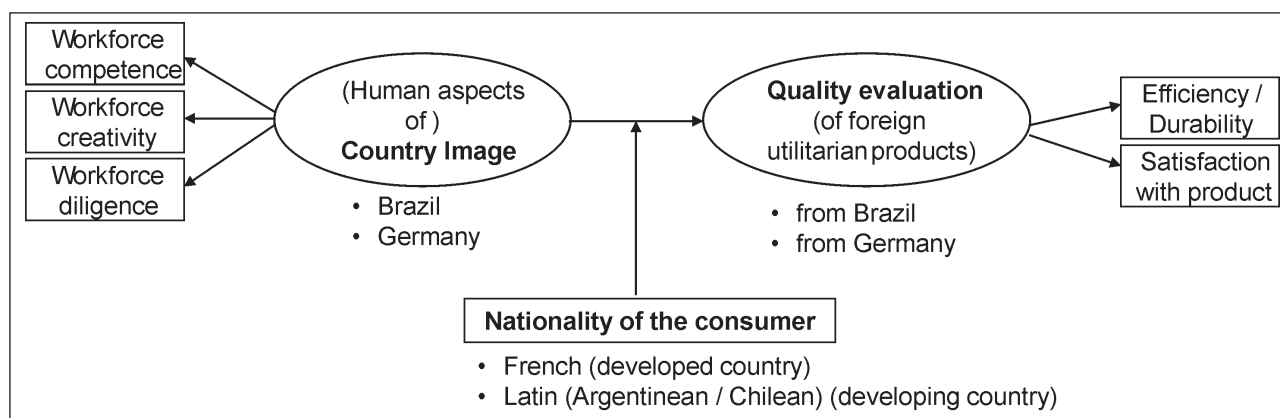


Figure 3. Operational Model

#### 4.6 Control variables

Since several variables have been argued to affect the impact of CoO, we employed the following controls in our study: age (Good, & Huddleston, 1995; Hsieh, Pan, & Setiono, 2004), gender (Bilkey, & Nes, 1982; Good, & Huddleston, 1995; Lawrence, Marr, & Prendergast, 1992), and level of formal education (Chao, & Rajendran, 1993).

#### 4.7 Within-subjects vs. between-subjects design

Following Verlegh and Steenkamp's (1999) advice, we employed a within-subjects (vs. between-subjects) design. In this within-subjects design, we had each respondent provide information about CoI for the two countries of origin of the products (Brazil and Germany) and about their quality assessment of products respectively originated from those countries. Then we compared, across respondents, the association of differences in CoI (as reported by each respondent) and differences in quality assessment (as reported, respectively, by the same respondents). In the alternative between-subjects design, one would compare (absolute) answers of each respondent with answers of the other respondents on each of the two focal constructs (CoI and quality evaluation). When compared to a between-subjects design, the withinsubjects design has the advantage of reducing error variance associated with individual respondents' differences.

#### 4.8 Mention of type of product vs. physical products or verbal descriptions

We believe that if consumers are shown a real physical product or given a verbal description of it, they may employ other cues, besides CoI, when reporting attitudes towards the product. Therefore, we chose to provide a mere mention of the category of product. Although this design decision may inadvertently inflate the effect of CoI, we were in fact interested not in the particular magnitude of the effect but rather

on whether such magnitude would vary across consumers from developed vs. developing countries. Indeed, it is better to avoid intrinsic cues, which might not be the same across the product, thereby, modifying the effect.

#### 4.9 Data collection instrument

An online survey was used to collect data from consumers. The questionnaire was first drafted in Portuguese (the native language of the researchers), tested in a pilot study with 10 Brazilian students and, after adjustments, translated into, and back translated from, French and Spanish by native speakers. Similar pre-tests were run with two French and two Spanish-speaking students. Seven-point semantic-differential response scales operationalized the indicators of the country image and the quality evaluation constructs.

#### 4.10 Sample

For reasons of convenience, respondents were recruited in a snowball fashion, starting from 35 French students and 10 Argentinean/Chilean (hereinafter, Latin American) students - who were taking courses in a Brazilian university - as well as the authors' personal networks.

From an initial pool of 271 questionnaires responded by French consumers, five were discarded because respondents said they have lived either in Brazil or Germany. Additionally, 88 were discarded because they had more than 15% missing values (most of them in the last questions, implying fatigue bias), while 25 were answered by non-French, and four had missing demographic data, thus leaving 149 valid questionnaires. Regarding the Latin American sample, 101 valid questionnaires were completed. After removal of respondents not born in those two countries and removal of questionnaires with more than 15% missing data (as recommend by Hair, Black, Babin, & Anderson, 2005), there remained 62 questionnaires. Although the Latin American sample was small, it nonetheless met minimum requirements for the statistical estimation procedures. Table 1 presents the sample profile.

**Table 1**  
**Respondents' profile**

Gender		Age			Education			
	French	Latin American		French	Latin American		French	Latin American
Female	59.9%	67.7%	18 to 29	80.8%	67.7%	High school or less	4.0%	0.0%
Male	40.1%	33.3%	30 to 39	7.9%	16.1%	University degree (incomplete)	34.5%	16.1%
			40 to 49	4.0%	8.1%	University degree (complete)	23.2%	40.3%
			50 to 59	5.7%	4.8%	Post-graduation	38.4%	43.5%
			over 60	1.7%	3.2%			

Although our sample might be overpopulated with students, instead of general consumers, this fact does not seem to pose a threat to the validity of the study. Verlegh and Steenkamp (1999) argued that two counter-balancing effects would be in place. First, CoO effects are generally smaller for younger consumers and for consumers with a higher level of education (*cf.* Usunier, 2006); second, student samples comprise a more homogeneous set, thereby yielding larger effects because they have lower response variance due to individual differences (*cf.* Sternthal, Tybout, and Calder, 1994). Verlegh and Steenkamp's (1999) empirical findings corroborate these arguments. Furthermore, we were not interested in the *absolute* value of the CoI effect, *per se*, but rather in determining whether the magnitude of the effect of (*differences* in) CoI would vary across consumers of different nationalities – so any potential upward bias of the CoO effect would be offset by this “differences” perspective.

#### 4.11 Missing data treatment

Data was MCAR (missing completely at random, *cf.* Little, & Rubin, 1987), and we imputed missing data by the average of mean substitution, regression imputation and EM approach.

#### 4.12 Assessment of common method bias

To safeguard against common method bias, we followed Podsakoff, MacKenzie and Lee's (2003) suggestions, such as assuring anonymity of the respondents and clear phrasing of the items.

We used the Harman's single-factor test for the extent of common method bias. The questionnaire included several other items besides those used in this study (25 items overall). As common method bias does not relate to specific questions but, rather, to the data collection instrument, all variables were used in Harman's test. Four factors emerged with eigenvalues greater than 1, with the first factor accounting for only 28% of total variance, which suggests that common method bias is unlikely to have been a major problem in this study. Furthermore, our main hypothesis is about moderation effects, which are not likely to be confirmed due to common method variance (Siemens, Roth, & Oliveira, 2010).

#### 4.13 Model estimation

We employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to estimate the measurement models and test the hypotheses, following recent papers in some of the most important Marketing journals (for a review, see Hair, Sarstedt, Ringle & Mena, 2012). PLS-SEM has more flexible assumptions than the traditional covariance-based SEM, and, in cases involving small samples and nonnormal indicators, may be more suitable (Cassel, Hackl, & Westlund, 1999).

### 5 Findings

Table 2 presents the observed correlations between operational indicators.

**Table 2**  
**Observed correlations between operational indicators**

	Latin American sub-sample				French sub-sample				Full sample			
	2	3	4	5	2	3	4	5	2	3	4	5
1. Competence	.548	.689	.384	.465	.427	.424	.566	.502	.455	.506	.513	.481
2. Creativity		.421	.195	.177		.345	.394	.402		.355	.335	.317
3. Diligence			.425	.486			.405	.324			.409	.378
4. Quality				.849				.646				.713
5. Satisfaction				1.00				1.00				1.00

Tests of internal consistency, construct dimensionality and reliability were conducted. All loadings were statistically significant, but two were below the desirable .707 threshold, although still higher than the minimally acceptable .50

threshold (Table 3). Composite reliability was .79 and .91 (respectively) and AVE was .87 and .96 (respectively), which indicates adequate psychometric properties of the measurement models.

**Table 3**  
**Estimation of Measurement (outer) Model Parameters**

Construct	AVE	Composite reliability	Indicators	French	Latin American	p-value for difference
				Loadings		
CountryImage	.87	.79	Competence	.85***	.91***	.31
			Creativity	.72***	.66***	.41
			Dedication	.64***	.90***	.17
Quality Assessment	.96	.91	Efficiency / Durability	.90***	.96***	.25
			Satisfaction with Product	.92***	.96***	.24

Measurement invariance across the two national samples was supported because it was not possible to reject the hypothesis of equality of weights across groups, using the combined probability test (Shipley, 2000; Nassif et al., 2009). This result implies that a single measurement model may be used for French and Latin American respondents.

The Hypotheses were tested in two steps. In the first step, a model was estimated with data from the full sample (French and Latin American respondents), having Country Image and a set of control variables (gender, level of formal education, and age) as exogenous predictors.

The direct effect of Country Image on Quality Evaluation was confirmed, thus corroborating  $H_1$  (Table 4). Then, models were estimated for each national sample and the path coefficients between Country Image and Quality Evaluation for French and Latin American respondents were compared. The difference was not statistically significant, suggesting that nationality of the consumer does not seem to affect the relationship between country image and evaluation (satisfaction), suggesting that the effect of CoI on Quality Evaluation might be smaller for developed product quality evaluations. In light of the above,  $H_2$  was not supported.



**Table 4**  
**Estimation of Structural (inner) Model Parameters**

Exogenous variables	Path coefficients			Coefficients difference (French – Latin Am.)	p-value of coefficients difference
	Full Sample	French	Latin American		
Age	.09	.01	.13	-.12	.27
Education	-.02	-.01	-.06	.05	.41
CoI	.48***	.56***	.43***	.13	.25
Gender	.13	.04	.20	-.16	.24

## 6 Discussion

While several studies have investigated factors that would affect consumers' preference for *domestic vs. foreign* products, we took the relatively under-researched topic of whether there would be differences across consumers from developed vs. developing markets in the impact of country image on the evaluation of *foreign* products.

The objective of this study was to bring an incremental contribution to our understanding of the mechanisms by which the country-of-origin might influence consumers' evaluations of products, specifically, verification of whether the nationality of the consumer moderates the relationship between country image and quality evaluation of foreign products.

In our literature review, we found only one study – Hsieh (2004) – that tested the moderating impact of nationality in a manner similar to that of the present study. Given Sharma's (2011) plea for more research on differences across consumers from developed vs. developing markets, our study is an attempt to incrementally fill this gap.

If such moderating impact does in fact exist, then, drawing on recommendations advanced by Amine and Shin (2002), managers should not only consider “where to produce, but also where to target goods manufactured at that location, in order to elicit the most favorable CoO effect in the mind of the target consumer” (p. 46).

Since very few studies have used Brazil as country-of-origin (only 12 in Unisier's (2006) review of 583 studies and none in Roth & Diamantopoulos' (2009) review), this study contributes by bringing this additional context.

Our significant findings about the positive effect of CoI on quality evaluations are in agreement with previous studies in general.

However, our non-significant findings regarding the moderating role of consumer nationality contrast with those of Hsieh (2004), who found that CoO effects were stronger for consumers from developing markets. In order to judge whether the two studies are comparable, it is interesting to notice that the products used in Hsieh's (2004) study were all from developed countries (France, Germany, Italy, Japan, South Korea, Sweden, UK, US), whereas one of our products was from a developed market (Germany) and the other, from a developing country (Brazil). The sample used by Hsieh (2004) comprised consumers from diverse developed markets (Australia, Belgium, Canada, France, Germany, Italy, Japan, Netherlands, South Korea, Spain, UK, and US) and developing markets (Brazil, China, India, Mexico, Russia, Taiwan, Thailand, and Turkey), while our study comprised consumers from only one developed market (France) and one developing market (the pooled sample of Argentina/Chile). We believe that the two studies are comparable, despite the fact that Hsieh (2004) used only developed markets as countries of origin. The fact that our design employed a differences approach means that, even if we had employed two developed markets as countries of origin, the absolute value of CoI (expectedly higher in developed markets in terms of human aspects) would not matter, but, rather, the difference in CoI between the two countries would be used in the analyses.



Häubl (1996) also found virtually no statistically significant differences in CoO effects across consumers from two developed countries (Germany and France), but they did not investigate the impact of CoO across consumers of developed vs. developing markets.

We now discuss some possible reasons for the non-significant moderator effect. First, the sample (in particular, the Latin American) was reasonably small, so the statistical power of the test to detect a relationship (if it truly exists in the population) was small (the probability to detect a difference of medium effect size is approximately 56%).

Additionally, it may be possible that Argentinians and Chileans have gained sufficient experience with foreign products over the years after trade liberalization – so their differences relative to consumers from more developed countries may have diminished. This argument may be especially valid for Chilean consumers, whose country opened its economy earlier. Also, Argentinian consumers may have enough experience with Brazilian products – Argentina has long been among the three largest commercial partners of Brazil –, so that they do not need to resort to CoI in order to judge the quality of Brazilian appliances.

## 7 Conclusions

This study investigated whether the strength of the effect of CoI on consumers' quality assessment of foreign products varies across consumers from more developed vs. less developed countries. Given the scarcity of studies on CoI effects that have used a developing country context (both as the source of products and specifically as the birthplace of consumers), this study helps to address this gap.

Future studies may move a step beyond and untangle what would account for the moderating effect of the nationality of the consumer (as has done, for example, Sharma (2011), who considered the influence of consumer's materialism, ethnocentrism and value consciousness on the relationship of CoO with

product evaluation and behavioral intentions).

The non-significance of the moderator effect found in this study should not be taken to mean that the nationality of the consumer does not modify the impact of CoI or does not have a direct impact on quality evaluation. In terms of "variety" of nationalities tested, this was a two-case (French and Argentinian/Chilean nationalities) study. Thus, it should be clear that these results may be specific to this particular two-case convenience sample. It is possible that Argentinian/Chilean consumers are sufficiently similar to French consumers in terms of the information they use to assess foreign products, since these countries have well-educated, Westernized, cosmopolitan elite classes who may be quite familiar with foreign products and brands. The argument that developing country consumers would tend to have less familiarity with foreign products may have become outdated (especially in the Chilean case), given globalization and trade openness trends. Therefore, although easier to operationalize, nationality (as a representation of level of country development) may not be well associated with familiarity with foreign products.

Several other differences between consumers from developed vs. developing markets – in terms of demographic, socio-economic, psychographic aspects – may also be associated with differences in their attitudes and behaviors towards foreign products (Batra, 1997; Cui & Liu, 2001; Han and Terpstra, 1988; Sharma, 2011). Since the present study controlled for some, but not all, of these differences, the impact of (differences in) CoI may have been inadvertently inflated or deflated (*cf.* Bilkey and Nes' (1982) argumentation).

This study has some methodological limitations. First, the sample is small and was not randomly drawn, but rather composed of volunteers and overrepresented with young adults and highly educated consumers; therefore, generalization to the larger population of consumers is not immediately warranted. French consumers possibly have more experience with German products than with Brazilian products

(and the reverse might be true for Argentines/Chileans), which may have somehow modified their opinions beyond the mere impact of CoI. Besides, at the country level, this is a two-case study (France and pooled Argentina/Chile). At the product level, this is a single-case study (electrical home appliances); although the use of a single product minimized confounding effects, it cautions against immediate generalization of findings – so results should be regarded as merely indicative.

Some recommendations and suggestions for future studies can be advanced. For example, investigating cross-country differences in the magnitude of the effect of CoI on consumers' assessment, attitude and behavior towards foreign products may shed light on the CoO phenomenon; moreover, researchers may also consider the existence of possible differences across sub-national cultures. As suggested by Laroche et al. (2003, p.244), "Although nations have been used as a proxy for culture (probably because it is more convenient), cultures and subcultures are not bound by national or other borders."

Future studies can take up the investigation of whether the effects of CoI dimensions (e.g., cognitions and affections) would be statistically different across consumers of different countries. Employment of different combinations of level of country development (specifically, developed (origin) vs. developed (destination), developed vs. developing, developing vs. developed, and developing vs. developing), as argued by Bilkey and Nes (1982) and by Verlegh and Steenkamp (1999), would be interesting. Future studies may continue the investigation about whether the size of the effect of CoO (or the specific effects of CoI dimensions) may vary across consumers from developed vs. developing countries, and whether the magnitude of the effect may vary for products from developed vs. developing markets. In order to better isolate the impact of particular CoI aspects on quality (or purchase intention) of particular types of products, it is recommended to choose countries (seller and buyer) that do not

present signs of high mutual rivalry or are seen as a threat to one another: such feelings may reflect impacts that go beyond the "neutral" judgment of CoI aspects.

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### Supporting Agencies:

The second author acknowledges the support received from FAPERJ (Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro, "Jovem Cientista do Nosso Estado – 2012" Project, grant nr. E-26/103.004/2012)

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2. Development of hypotheses or research questions ( empirical studies )	√	√	
3. Development of theoretical propositions ( theoretical Work )			
4. Theoretical foundation/ Literature review	√	√	√
5. Definition of methodological procedures	√	√	√
6. Data collection	√	√	
7. Statistical analysis	√	√	√
8. Analysis and interpretation of data	√	√	√
9. Critical revision of the manuscript	√	√	√
10. Manuscript Writing		√	√
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