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The influence of country image structure on consumer evaluations of foreign products

Michel Laroche
John Molson School of Business, Concordia University, Montreal, Canada
Nicolas Papadopoulos and Louise A. Heslop
Eric Sprott School of Business, Carleton University, Ottawa, Canada
Mehdi Mourali
John Molson School of Business, Concordia University, Montreal, Canada

Abstract

Purpose – This study was designed to extend knowledge of cognitive processing of country of origin cues by refining the concept of country image and investigating its role in product evaluations.

Design/methodology/approach – Data were collected from residents of a large North American metropolitan. A total of 436 usable questionnaires were returned. Data analysis was conducted using the EQS structural equation modeling software

Findings – We found that country image is a three-dimensional concept consisting of cognitive, affective, and conative components. We modeled the relationships among country image, product beliefs, and product evaluations, and found that country image and product beliefs affect product evaluations simultaneously regardless of consumers' level of familiarity with a country's products. Findings also indicated that the structure of country image influences product evaluations both directly and indirectly through product beliefs. Consistent with affect transfer theory, the results showed that when a country's image has a strong affective component, its direct influence on product evaluations is stronger than its influence on product beliefs. Alternatively, when a country's image has a strong cognitive component, its direct influence on product evaluations was smaller than its influence on product beliefs.

Research limitations/implications – One limitation pertains to the relatively poor psychometric properties of some items. Future research will benefit from further improvements in the measures of country image that tap into the various facets of the construct.

Originality/value – The major contributions of the study consist of the full operationalization of country image as a three-dimensional concept, and the findings on the impact of country image structure on consumers' evaluation processes.

Keywords Country of origin, Product differentiation, Product image, Linear structure equation modelling

Paper type Research paper

Introduction

A product's country of origin, or product-country image (PCI), influences consumers' evaluation of it. German, Swedish and Japanese cars, Japanese home electronics and

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French wines, for example, are generally perceived and evaluated differently from, say, Russian cars, Brazilian electronics, or Israeli fashion. The marketing literature abounds with examples and research evidence in support of such an argument (Liefeld, 1993; Baughn and Yaprak, 1993; Verlegh and Steenkamp, 1999; Jaffe and Nebenzahl, 2001).

The fact that a product's origin matters to consumers has significant strategic implications for firms engaged in both domestic and international businesses. Findings from PCI studies can provide valuable strategic information to firms exporting their products, manufacturing abroad, and/or competing in their home markets against foreign companies. The relevance of country of origin research becomes even more salient when one considers the increasing trend toward free trade and the high pace at which national economies are turning global. The numerous practical and theoretical implications of country-of-origin research have made it one of the most fruitful research areas in marketing, with hundreds of studies published since the 1960s.

In the past 15 years or so, scholars have made several attempts to devise an integrative theory of how consumers incorporate PCI information in forming their attitudes and expressing their purchase intentions (Johansson *et al.*, 1985; Papadopoulos *et al.*, 1988; Johansson, 1989; Han, 1989; Hong and Wyer, 1989; Nebenzahl *et al.*, 1997; Knight and Calantone, 2000). Although an overall picture of the structure of country image and the cognitive process associated with it seems to be slowly emerging, it still needs further refinement. The present paper aims at extending this stream of research. The primary goal is to provide further clarifications on the complex issue of country image cognitive processing and structure. The study proposes and tests a model of the associative links between the various constructs implied in the cognitive process. We first describe and empirically test the country image concept as a multi-dimensional construct, which includes a cognitive, an affective and a conative component. Subsequently, we test the relationships between country image, on the one hand, and product beliefs and product evaluations, on the other. The findings are then interpreted from a theory-building point of view and practical implications are discussed.

Country image

The image of countries as origins of products is one of many extrinsic cues, such as price and brand name, that may become part of a product's total image (Eroglu and Machleit, 1989). Past research has demonstrated that consumers tend to regard products that are made in a given country with consistently positive or negative attitudes (Bilkey and Nes, 1982). These origin biases seem to exist for products in general, for specific products, and for both end-users and industrial buyers alike (Bilkey and Nes, 1982; Dzever and Quester, 1999). In addition, origin biases have been found for both developed countries and less developed ones (Nes and Bilkey, 1993). Generally speaking, products from the latter are perceived to be riskier and of lower quality than products made in more developed countries.

In a meta-analysis, Liefeld (1993) concluded that country image appears to influence consumer evaluation of product quality, risk, likelihood of purchase, and other mediating variables. He also noted that the nature and strength of origin effects depend on such factors as the product category, the product stimulus employed in the research, respondent demographics, consumer prior knowledge and experience with the product

category, the number of information cues included in the study, and consumer information processing style.

Papadopoulos (1993) posits that the image of an object results from people's perceptions of it and the phenomena that surround it. Based on the studies conducted in eight different countries, Papadopoulos *et al.* (1988) were among the first to incorporate distinct country image measures in PCI research (in addition to measures of products simply designated as "made in X"), and the first to attempt to model the relationship between country beliefs, product beliefs, familiarity, and product evaluation and willingness to buy, using LISREL. After further elaborating on their data from the above and other studies, they proposed that consumers' perceptions of the country of origin of a product comprise (Papadopoulos *et al.*, 1988,1990, 2000):

(1) a cognitive component, which includes consumers' beliefs about the country's industrial development and technological advancement;

(2) an affective component that describes consumers' affective response to the country's people; and

(3) a conative component, consisting of consumers' desired level of interaction with the sourcing country.

Despite the theoretical appeal of this conceptualization, which includes the three components of an attitude, most empirical studies of country image cognitive processing have not considered the multi-dimensionality of country image when operationalizing the construct (Johansson *et al.*, 1985; Han, 1989; Knight and Calantone, 2000). In addition, some of these studies tested paths within a conceptual model individually rather than testing the complete model (Johansson and Nebenzahl, 1986). Further, most measured "country" image through product rather than country measures (Han, 1989), and some focused on affect-oriented country/people measures rather than cognitive ones (Knight and Calantone, 2000). In turn, the Papadopoulos *et al.* (1988) model, which did not share these weaknesses, was hampered by the absence of well-defined country measures at the time of their research, which resulted in model constructs that were not as well defined as would be possible today.

It is our contention that while country image affects product evaluations, its very structure, that is the relative importance attached to its cognitive, affective, and conative components, has a significant impact on the extent of its influence on product evaluations. Consequently, the first objective of our study is to empirically confirm the three-dimensional structure of the country image construct. Consistent with Papadopoulos *et al.* (1988, 1990), we define country beliefs as consumers' beliefs about the country's industrial development and technological advancement. The concept of people affect refers to consumers' affective responses (e.g. liking) to the country's people. Finally, the concept of desired interaction reflects consumers' willingness to build close economic ties with the target country. Thus, we propose:

H1. Country image is a multi-dimensional construct represented by a three-factor model, reflecting country beliefs, people affect, and desired interaction rather than by a single-factor model.

Conceptualizations of country image

Prior studies examining the role of product origin in consumer evaluations have generally portrayed country image as a halo that people use to infer the quality of unfamiliar foreign products (Bilkey and Nes, 1982). The reasoning is that when consumers have little knowledge about a foreign product's attributes, they are likely to use indirect evidence, such as country of origin, to evaluate products and brands and make inferences regarding the quality of their attributes. In support of the halo view, Johansson *et al.* (1985) showed that country image does affect the evaluation of product attributes, but not the overall evaluation of products. Furthermore, their findings indicated that the overall evaluation of an automobile appeared to influence consumers' ratings on specific attributes. Also, Erickson *et al.* (1984) reported that country image impacts consumers' evaluation of specific attributes rather than their overall evaluation of the product.

The halo argument implies that when consumers are familiar with the product category, their reliance on indirect evidence such as the country of origin of the product should lessen. Evidence, however, does not seem to support this argument. In fact, the opposite has often been reported. Findings by Johansson *et al.* (1985) and Johansson and Nebenzahl (1986) indicated an increase in the propensity to use the country of origin information when product familiarity increased, which clearly weakens familiarity-based explanations.

In an attempt to explain these findings, Johansson (1989) proposed that country image could play the role of a "summary" variable. According to this view, consumers use the PCI construct to summarize information about product attributes. This conceptualization is based on the theory of limited processing capacity, which posits that, as a result of the limited capacity of our short-term memory, we tend to abstract and "chunk" information to facilitate its storing in and retrieval from long-term memory (Miller, 1956). Papadopoulos *et al.* (1990) also used this as a partial explanation of the results from their eight-country study. Johansson (1989) argues that viewing the country image as a summary construct provides a good explanation for the positive interaction between product familiarity and the use of country of origin cue in product evaluation. He posits that "people with more prior knowledge will have more relevant information on a country and will feel more comfortable about using it than others" (p. 54).

Johansson's (1989) model also suggests that in certain situations, origin information may be viewed as a salient product attribute, which directly influences consumers' evaluations through affective and behavioral intentions processes. In the case of affect, a product's country of origin may evoke positive or negative feelings. Whether the consumer likes the product will then depend, at least in part, on his/her feelings toward the sourcing country. Johansson (1989) illustrates this point by citing the examples of Jewish rejection of German cars and how some people would never want to be seen in a Yugoslav car, regardless of objective ratings. In the case of behavioral intentions, he describes how "peer pressure through social norms can stigmatize 'unacceptable' countries' products" (p.56). The direct impact of affect on behavioral intentions has also been confirmed by Klein *et al.* (1998) and Villanueva and Papadopoulos (2003).

In line with the theoretical work of Johansson (1989), Han (1989) empirically tested two causal models reflecting the halo and summary-construct roles of country image in consumer evaluations. He concluded that, depending on consumers' level of familiarity with the country's products, country image may serve as a halo from

which consumers infer a product's attributes, or as a summary construct that summarizes consumers' beliefs about these attributes. In the case of low familiarity, country image (CI) affects consumers' attitudes indirectly through product beliefs (CI → Beliefs → Attitudes). In the case of high familiarity, it directly affects consumers' attitudes toward the product, while product beliefs do not affect attitudes directly (Beliefs → CI → Attitudes)[1].

Knight and Calantone (2000) criticized Han's conceptualization for not accounting for the simultaneous processing of country image and product beliefs that takes place during consumer attitude formation. In fact, Han's (1989) models suggest that in the cases of low and high familiarity, country image and beliefs, respectively, have no direct influence on attitudes.

Knight and Calantone (2000) put forward a "flexible" model that explicitly accounts for the simultaneous processing of country image and product beliefs. The authors argue that regardless of consumers' level of familiarity with a country's products, both the country image and product beliefs are used simultaneously and in varying degrees to form attitudes toward the product. Furthermore, country image is assumed to have an additional indirect effect on attitudes through consumers' product beliefs.

The proposed model

We propose a model similar to the "flexible" model of Knight and Calantone (2000), but building on the models by Papadopoulos *et al.* (1988, 1990) and Han (1989). The main difference resides in our conceptualization of country image as a multi-dimensional construct and its implications. In our model (Figure 1), product beliefs refer to consumers' beliefs about a product's intrinsic characteristics such as quality and reliability. Product evaluation, on the other hand, refers to consumers' attitude toward the product and is operationalized in terms of pride of ownership, liking, and intention to purchase. Furthermore, the proposed model, like the "flexible" model, posits a simultaneous processing of country image and product beliefs regardless of consumers' level of familiarity. In addition, country image is expected to influence product beliefs and hence to have an additional indirect effect on product evaluation.

Further to highlighting the simultaneous processing of country image and product beliefs, the proposed model takes into account both the halo and summary views.

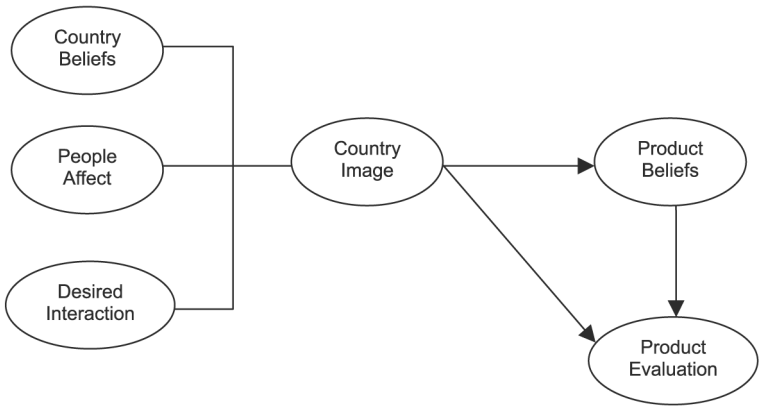

Figure 1.
The proposed model

The direct effect of country image reflects its use as a summary construct, while the indirect effect, through product beliefs, represents consumers' use of country image as a halo. The following three hypotheses are thus similar to those formulated by Knight and Calantone (2000).

H2. Regardless of consumers' product familiarity, country image is significantly related to product evaluation.

H3. Regardless of consumers' product familiarity, country image is significantly related to product beliefs.

H4. Regardless of consumers' product familiarity, product beliefs are significantly related to product evaluation.

Knight and Calantone (2000) compared the relative effects of country image and product beliefs under different levels of familiarity. They speculated that in the case of low familiarity with a country's products, the effect on attitudes of country image would be smaller than that of product beliefs. In contrast, when familiarity is high, they expected country image to have a greater influence in shaping consumers' attitudes than product beliefs. Knight and Calantone's (2000) data, however, failed to support these hypotheses.

Rather than comparing the relative effects of country image and product beliefs on evaluation, we propose to compare the impact of country image on product beliefs and its impact on product evaluation at different levels of familiarity. As noted above, past research has suggested that consumers might use country image more as a halo when they are unfamiliar with the product, and more as a summary cue when they are highly familiar with the product. A direct implication of this is that the effect of country image on product evaluation should increase with familiarity, while its effect on product beliefs should decrease with familiarity. Indeed, according to the summary construct view, the effect of country image on evaluations is expected to increase with familiarity. This is because more knowledgeable consumers are expected to feel more comfortable using the PCI cue in their evaluations (Johansson, 1989).

Moreover, the halo view holds that consumers unfamiliar with a country's products are unable to detect their true quality before purchase and are therefore likely to use country image to infer it (Huber and McCann, 1982; Han, 1989). As they become more familiar with the products, and so more able to detect their true quality, they would tend to rely less on the country of origin cue to form their beliefs about product quality. Thus, the effect of country image on product beliefs is expected to diminish as product familiarity increases. Consistent with both the halo and summary views, we propose the following two hypotheses:

H5. The effect of country image on product evaluation is smaller under low familiarity conditions than under high familiarity conditions.

H6. The effect of country image on product beliefs is larger under low familiarity conditions than under high familiarity conditions.

H2-H6 deal with potential familiarity effects, which have been addressed in various ways by Han (1989), Knight and Calantone (2000), and others. In addition, we propose that the structure of country image, per *H1*, impacts the magnitude of its influence on product beliefs and product evaluation. In *H1* we posit that a country's image consists

of cognitive, affective, and conative components. The relative importance given to each of these dimensions when constructing a country image is likely to vary from person to person and from country to country. Thus, the image of one country, for example, could be heavily reflected by the affective component, while the image of another country could be based more on the cognitive or conative components.

When the image of a country is essentially reflected by the affective component, the origin cue becomes a salient product attribute, directly affecting product evaluation (Johansson, 1989). Then, country image should have a greater impact on product evaluation (direct effect) than on product beliefs (indirect effect). This is consistent with the phenomenon of affect transfer documented in the advertising literature. Based on classical conditioning principles, this theory predicts that in many circumstances, affective responses elicited by an advertisement will eventually transfer to the advertised brand (Gorn, 1982; Stuart *et al.*, 1987; Shimp *et al.*, 1991). Accordingly, affect toward the country will be transferred directly to the product.

Alternatively, we suggest that if a country's image consists mainly of cognitive beliefs about the country's degree of industrial development and technological advancement, then its image will have a greater effect on consumers' beliefs about the products' quality than on their direct evaluation of the products. This is consistent with the classical view of how consumers use the origin cue (Bilkey and Nes, 1982). The following hypotheses are proposed:

H7. When the affective component of a country image is greater than the cognitive component, the influence of country image on product evaluation will be greater than its influence on product beliefs.

H8. When the cognitive component of a country image is greater than the affective component, the influence of country image on product evaluation will be smaller than its influence on product beliefs.

In summary, this paper aims at revisiting hypotheses and findings from past research and then turns its attention to the major contributions of examining the structure of country image and examining the relative effects of its components on product beliefs and/or evaluations.

Methodology

Sample

Data were collected from residents of a large North American metropolitan area using the area sampling method. Census tracts were selected in 23 municipalities and one or two streets were randomly chosen within each tract to proceed with a door-to-door distribution of the questionnaires. A total of 1,200 self-administered questionnaires were distributed, of which 470 were returned and 436 were usable resulting in a satisfactory response rate of 36.3 percent. The sample had a fair representation of both genders (55.2 percent men and 44.8 percent women). The respondents' level of education and income were somewhat higher than the average population, with about half of the respondents having a college or university degree and 45 percent having a family income of US $50,000 or more. In addition, about three quarters of the respondents were between 20 and 64 years old, with the mode (48.2 percent) in the 35-49 range. This profile is consistent with the characteristics of the residential areas being sampled.

Measures

One section of the questionnaire was designed to assess consumers' beliefs about the quality of Japanese and Swedish products in general, their familiarity with these products, and their evaluations of them. Another section measured respondents' views of the countries and their people. The last section was focused on demographic information.

Two origin countries were used to provide external validity to the proposed model by showing that the findings for one country could be applied to another. The use of the two countries was also essential for testing hypotheses *H7* and *H8*. Japan and Sweden were selected because of their different historical and economic ties with North America, especially in the past 30 years. It was surmised that Japan's image, in the minds of North American consumers, would include a greater affective component, because Japan has strongly impacted the world economy and has presented a major challenge to the major economic superpowers by producing high quality products in areas such as automobiles and consumer electronics. Sweden's image, on the other hand, was assumed to be less affect-based because of Sweden's weaker historical and economic ties with North America, and because of the functional quality of their automobiles (Volvo) and their furniture (Ikea).

Images may vary across product classes. However, studies that have examined product images at the global level (i.e. all products of a country), product class level, and product or brand level simultaneously have consistently shown that country stereotypes exist at all levels and are congruent amongst themselves. That is, even though the image of items at a lower level of specificity varies, they all are evaluated more or less positively in line with the country's overall image (Reierson, 1966; Kaynak and Cavusgil, 1983; Garland and Crawford, 1987; Dzever and Quester, 1999; Papadopoulos *et al.*, 2000). For this reason, and because of the study's interest in advancing the general understanding of country image rather than obtaining product-specific evaluations, we sought to obtain global rather than product-specific assessments.

All the items used in this study were adapted from previous research. country image, for example, was measured by a nine-item seven-point bipolar adjective scale adapted from Papadopoulos *et al.* (1988) and Li *et al.* (1997). Product beliefs, product evaluations, and product familiarity were also measured by seven-point bipolar scales adapted from Papadopoulos *et al.* (1988, 2000) and Nagashima (1977). A description of the items and reliability measures of all the scales is provided in Appendix Table AI.

Analysis

Data analysis was conducted using the EQS structural equation modeling software of Bentler (1992). Convergent and discriminant validity in the measures was assessed through a confirmatory factor analysis reflecting causal relationships among the observed variables and theoretical constructs. Detailed results of the overall fit of the measurement models and item loadings for both countries are presented in Appendix Table AI.

Overall fit criteria include the chi-square (χ^2) statistic and its *p*-value, the ratio χ^2/df, the normed fit index (NFI), non-normed fit index (NNFI), and comparative fit index (CFI). Ideally the χ^2 value should be small and its associated probability value should be greater than the selected significance level. However, as this statistic is

sensitive to sample size and statistical power, it would reject almost every reasonable model in a great statistical power condition (Raykov *et al.*, 1991). Alternatively, acceptable model fits are indicated by χ^2/df values smaller than 5 (Taylor and Todd, 1995). As for the other fit indices (NFI, NNFI, and CFI), they range from 0 to 1 and are derived from a comparison of the hypothesized model with the null model. Values greater than 0.90 are considered to indicate acceptable fit to the data (Bentler, 1992).

Results of our analysis suggest a good fit of the measurement model to the data. In the Japanese case, for example, the statistics are $\chi^2 = 143.5$ for 80 degrees of freedom ($p < 0.001$), $\chi^2/\text{df} = 1.79$, NFI = 0.92, NNFI = 0.95, and CFI = 0.96. The measurement model displayed equally desirable goodness of fit statistics in the Swedish case (see Appendix Table AI).

In assessing the validity of the measures, Bollen (1989) suggests a scrutiny of the factor loadings as well as the squared multiple correlations between the items and the constructs. Bagozzi and Yi (1988) suggest that factor loadings of 0.60 and more are indicative of convergent validity. Regarding the squared multiple correlations, values greater than 0.40 are suggestive of substantial shared variance with the underlying theoretical constructs (Taylor and Todd, 1995).

The results, shown in Appendix Table AI, indicate that several items have relatively small squared multiple correlations, which may suggest poor convergent validity. Support for convergent validity, however, is provided by results regarding the factor loadings. Indeed, all the factor loadings are significant at 5 percent and only two are just below the 0.60 threshold. Overall, we feel that these results reflect limited but nonetheless satisfactory convergent validity.

As evidence of discriminant validity, Lagrange multiplier tests revealed that no item loaded significantly on a factor for which it was not intended. A more stringent statistical test of discriminant validity, however, consists of performing a chi-square difference test between two models: one in which the correlation between two constructs is freely estimated, and one where the correlation is fixed to be 1.0 (Salisbury *et al.*, 1996). A chi-square difference greater than 3.84 ($\alpha = 0.05$) would suggest that the two constructs are statistically different. Our results provide strong evidence of discriminant validity of constructs for every possible pairing (see Appendix Table AII).

Results

The first hypothesis stated that consumers' country image is represented by a three-factor model, reflecting country beliefs, people affect, and desired interaction rather than by a single-factor model. To test *H1*, we specified a CFA model in which the three first-order factors are explained by a single second-order factor, the country image, and compared it to a single-factor model of country image. The results for the two test countries are presented in Table I.

In support of *H1*, Table I clearly shows that for both countries, the second-order model of country image is a good fitting model. Moreover, it is substantially better than the single-factor model, which represents a poor fit to the data. The superiority of the three-factor model is further confirmed by a formal statistical test of chi-square difference. Indeed, the difference is $\chi^2 = 205.68$ for 3 degrees of freedom ($p < 0.001$) for Japan, and $\chi^2 = 201.21$ for 3 degrees of freedom ($p < 0.001$) for Sweden.

	Japan	Sweden
Single-factor model of country image	χ^2=262.53, df = 27, $p < 0.001$ χ^2/df=9.72 NFI = 0.59 NNFI = 0.49 CFI = 0.61	χ^2=269.13, df = 27, $p < 0.001$ χ^2/df=9.97 NFI = 0.79 NNFI = 0.73 CFI = 0.80
Three-factor model of country image (second-order model)	χ^2=56.85, df = 24, $p < 0.001$ χ^2/df=2.37 NFI = 0.92 NNFI = 0.92 CFI = 0.95 Loading of CB = 0.406* Loading of PA = 0.704* Loading of DI = 0.948*	χ^2=67.92, df = 24, $p < 0.001$ χ^2/df=2.83 NFI = 0.95 NNFI = 0.94 CFI = 0.96 Loading of CB = 0.775* Loading of PA = 0.658* Loading of DI = 0.937*
Difference in χ^2 between the three-factor and the single-factor models	χ^2 difference=205.68 df = 3 $p < 0.001$	χ^2 difference=201.21 df = 3 $p < 0.001$
Constraint: loading of CB = loading of PA	χ^2 difference=6.61 df = 1 $p < 0.001$	χ^2 difference=0.618 df = 1 $p = 0.43$
Constraint: loading of CB = loading of DI	χ^2 difference=24.05 df = 1 $p < 0.001$	χ^2 difference=7.91 df = 1 $p = 0.005$
Constraint: loading of PA = loading of DI	χ^2 difference=3.60 df = 1 $p = 0.058$	χ^2 difference=12.94 df = 1 $p < 0.001$

Note: *significant at $\alpha = 0.05$

Table I.
Country image factorial structure

In addition, the results suggest that the relative importance given to country beliefs, people affect, and desired interaction when constructing a country image is different for Japan and Sweden. For Sweden, the loading of country beliefs on the image construct is greater than the loading of people affect (0.78 vs 0.66), while the opposite is true for Japan (0.41 vs 0.70). Furthermore, the loading of desired interaction is equally high for both countries (0.94 for Sweden and 0.95 for Japan) and is higher than the loadings of the other two dimensions. We can formally test for statistical significance of these differences by specifying a series of structural models, in which we constrain every pair of loadings to be equal. A chi-square test will indicate whether the constraint is valid or should be released. The lower part of Table I shows that, for Japan, the loading of people affect on country image is significantly greater than the loading of country beliefs ($\chi^2 = 6.61$, df = 1, $p = 0.01$). Both of these loadings are significantly smaller than the loading of desired interaction. For Sweden, the difference between the loadings of country beliefs and people affect did not reach statistical significance ($\chi^2 = 0.618$, df = 1, $p = 0.43$), while, again, both loadings were significantly smaller than that of desired interaction.

In sum, these results indicate that the images consumers have of the two foreign countries under study mirror their level of desired interaction with these countries to a great extent. Moreover, Japan's image reflects consumers' affect toward Japanese people more than their cognitive beliefs about Japan's degree of industrial development

and technological advancement. On the other hand, there was no significant difference as to the relative importance of country beliefs and people affect when constructing the image of Sweden.

A test of invariance was also conducted to compare the loadings across the two country-groups. The Lagrange multiplier test for releasing constraints indicated that only the loading of country beliefs was significantly different between the two countries ($\chi^2 = 20.58$, df = 1, $p < 0.001$). Sweden's image seems to reflect more cognitive beliefs than Japan's image. Both countries' images, however, seem to reflect similar levels of affective and conative perceptions.

Turning to the role of familiarity, *H2-H4* suggested significant associative links between country image, product beliefs, and product evaluation, under states of high and low familiarity. In order to test these hypotheses, we specified the full structural equation model depicted in Figure 1 and tested it under low and high familiarity conditions. Familiarity was self-reported and reflected respondents' level of knowledge about a country's products. Scores ranging from 1 to 3 on the seven-point scale were used to select the low familiarity group and scores ranging from 5 to 7 were used for the high familiarity group. The sample sizes were, respectively, 182 and 225 for Sweden and 265 and 167 for Japan.

Results of the analysis, as shown in Table II, indicate adequate fit of the proposed model to the data when evaluating both Japanese and Swedish products and for both the high and low familiarity conditions. In addition, all item loadings are significantly different from zero at the 0.05 level, thus further confirming the convergent validity in the construct measures.

The results also provide full support for *H2-H4*. Under both low and high familiarity conditions, and for both countries, country image was found to be a significant antecedent of both product evaluation and product beliefs. Furthermore, product beliefs were found to be a significant antecedent of product evaluation. These results replicate the findings of Knight and Calantone (2000).

In addition, the halo and summary construct models, as specified by Han (1989), were tested as alternative models and compared with the one proposed here. Differences in χ^2 were computed to compare the goodness of fit of the models. The results in Table II indicate that the proposed model outperformed both the halo and the summary construct models under both high and low familiarity conditions, and for both Japan and Sweden.

Concerning *H5* and *H6* (in low familiarity conditions, country image effect, respectively, smaller on product evaluation and larger on product beliefs), Table II shows that the path coefficients are slightly different in the cases of low and high familiarity. However, a robust assessment of these two hypotheses consists of conducting tests of structural invariance between the low familiarity and the high familiarity groups for the two countries. The invariance model displayed satisfactory overall fit for both countries ($\chi^2 = 274.27$, df = 171, $\chi^2/\text{df} = 1.60$, NFI = 0.86, NNFI = 0.92, CFI = 0.94 for Japan and $\chi^2 = 268.40$, df = 171, $\chi^2/\text{df} = 1.57$, NFI = 0.89, NNFI = 0.95, CFI = 0.96 for Sweden). In addition, the results showed no significant differences between the two groups regarding the strength of relationships between the constructs. The Lagrange multiplier test for releasing constraints indicated that for both countries, the equality constraints held (i.e. the effects were statistically invariant in the high and low familiarity conditions).

Model	Statistic	Japan		Sweden	
		Low familiarity	High familiarity	Low familiarity	High familiarity
Proposed model	χ^2 (df)	126.4 (84)	143.8 (84)	129.1 (84)	135.5 (84)
	NFI	0.85	0.87	0.90	0.90
	NNFI	0.93	0.92	0.95	0.95
	CFI	0.94	0.94	0.96	0.96
	CI→ PB[a]	0.316*	0.208*	0.484*	0.604*
	CI→ PE[a]	0.482*	0.369*	0.289*	0.414*
	PB→ PE[a]	0.282*	0.467*	0.339*	0.387*
Halo model	χ^2 (df)	147.2 (85)	163.5 (85)	137.5 (85)	151.4 (85)
	NFI	0.82	0.85	0.89	0.88
	NNFI	0.89	0.90	0.94	0.93
	CFI	0.91	0.92	0.95	0.94
	CI→ PB[a]	0.328*	0.250*	0.502*	0.629*
	PB→ PE[a]	0.448*	0.558*	0.490*	0.660*
Summary construct model	χ^2 (df)	131.5 (85)	179.6 (85)	142.2 (85)	149.4 (85)
	NFI	0.84	0.83	0.88	0.88
	NNFI	0.92	0.88	0.94	0.93
	CFI	0.94	0.90	0.95	0.95
	PB→ CI[a]	0.676*	0.543*	0.529*	0.661*
	CI→ PE[a]	0.526*	0.546*	0.504*	0.704*
Proposed vs Halo	Difference in χ^2 (df), p-value	20.8 (1) $p<0.01$	19.7 (1) $p < 0.01$	8.4 (1) $p < 0.01$	15.9 (1) $p < 0.01$
Proposed vs Summary	Difference in χ^2 (df), p-value	5.1 (1) $p<0.05$	35.8 (1) $p < 0.01$	13.1 (1) $p < 0.01$	13.9 (1) $p < 0.01$

Notes: [a]standardized estimates; and *significant at $\alpha = 0.05$

Table II.
Proposed model of product country image vs Halo and summary models

Therefore, *H5* and *H6*, which predicted differences in the magnitudes of effects at different levels of familiarity, were not supported.

We found earlier that in constructing an image of Japan, the respondents in our sample seemed to rely more on their affective reaction to the Japanese people than on their beliefs about Japan's industrial advancement. We also noted that the opposite was true when they were forming an image of Sweden, although the difference was not statistically significant in this case. This interpretation allows us to test *H7* and *H8*, in which we proposed that

(1) when the country image is mainly based on affect (Japan), its influence on product evaluation will be greater than its influence on product beliefs; and

(2) when the country image is mainly based on cognition (Sweden), its influence on product evaluation will be smaller than its influence on product beliefs.

The proposed model was fitted to both countries without considering respondents' level of product familiarity and yielded the results shown in Table III.

The results are consistent with *H7* and *H8*. It is clear that in the case of Japan, where country image has an affective component larger than the cognitive one, the direct effect of country image on product evaluation (CI → PE = 0.414) is significantly greater ($\chi^2 = 4.016$, $p = 0.046$) than the effect of country image on product beliefs (CI → PB = 0.312). In the case of Sweden, the direct effect of country image on product evaluation (CI → PE = 0.331) is significantly smaller ($\chi^2 = 7.133$, $p = 0.008$) than its effect on product beliefs (CI → PB = 0.557). These results provide strong evidence in support of *H7*. The results are also congruent with the predictions made in *H8*. However, the latter hypothesis cannot be formally tested because we did not find statistical significance in the difference between the loadings of the cognitive and affective components of country image of Sweden.

Table III also shows that the total effect (direct plus indirect) of country image on product evaluation is considerable and similar for both countries (0.537 for Japan and 0.548 for Sweden).

	Japan	Sweden
χ^2 (df) p-value	166.90 (84) $p<0.001$	171.82 (84) $p < 0.001$
χ^2/df	1.99	2.05
NFI	0.91	0.93
NNFI	0.94	0.95
CFI	0.95	0.96
CI→PB[a]	0.312*	0.557*
CI→PE[a]	0.414*	0.331*
PB→PE[a]	0.394*	0.390*
Constraint:	χ^2 difference=4.02	χ^2 difference=7.13
CI → PB = CI → PE	df = 1	df = 1
	$p = 0.046$	$p = 0.008$
Total effect of country image on evaluation (direct + indirect)	0.537	0.548

Note: [a]standardized estimates; and *significant at $\alpha = 0.05$

Table III.
Proposed model and test of the effect of country image structure

Discussion and implications

The cognitive structure of country image is a complex research issue and one with potentially important implications for practitioners. Scholars investigating the topic are coming closer and closer to a clear picture of how consumers use the country of origin image in product evaluations (Johansson *et al.*, 1985; Papadopoulos *et al.*, 1988; Johansson, 1989; Han, 1989; Knight and Calantone, 2000). This study extended the current knowledge on country of origin cognitive processing. In line with Knight and Calantone (2000), we found that country image and product beliefs affected product evaluations simultaneously regardless of consumers' level of familiarity with a country's products. In addition, we tested the proposition that country image affects product beliefs and product evaluations differently under high and low familiarity conditions, by examining whether the effect of country image on product evaluations increases, while its influence on product beliefs decreases, with familiarity, but we did not find support for these hypotheses.

The major contributions of the study consisted of the full operationalization of country image as a three-dimensional concept, consisting of a cognitive, an affective, and a conative component, and the findings on the impact of country image structure on consumers' evaluation processes. Although the three-dimensional conceptualization has long been suggested in the literature (Papadopoulos *et al.*, 1990), previous studies of country image cognitive processing have consistently failed to incorporate it in their operationalization of the construct (except for Papadopoulos *et al.* (1988), whose work was constrained by the absence of well-developed measures of country image).

Information relevant to country images in the market context is provided to consumers in a variety of ways from numerous sources, including education, the media, travel, and marketing cues including origin associations which may be provided through made-in labels, brand names, advertising and packaging, and other parts of the marketing mix. PCI research focuses on studying what consumers think and feel when they are exposed to this information, how they form their country images, and how they may use them in their marketplace behavior. In this paper, we focused on understanding what makes a country's image as a producer and how consumers may use that image in assessing products.

Our findings indicate that the structure of country image may influence the extent to which this image impacts product evaluations directly and indirectly through product beliefs. Consistent with the affect transfer theory, the results showed that when a country's image includes a strong affective component, its direct influence on product evaluation is stronger than its influence on product beliefs. Alternatively, when a country's image has a strong cognitive component, its direct influence on product evaluations is smaller than its influence on product beliefs. The results also indicated that the total effect of country image on product evaluations was equally substantial whether the image is based on affect or cognition. These findings provide useful insights into the role of country-based affect in product evaluations, which has so far been relatively neglected in PCI research. As noted earlier, the vast majority of PCI studies have used product-only measures. As a result, they have inevitably stressed cognitive factors as the key components of product evaluations. Instead, by using separate country and people measures, the nascent stream of research to which this study contributes serves to highlight the potentially important role of affect for some countries.

Another key result is that our model (like that of Knight and Calantone, 2000) was found to be superior to Han's (1989) halo and summary conceptualizations, based on the chi-square differences reported above. While Han's (1989) work clearly made a major contribution at the time it was published, by helping to advance research thinking and understanding of the PCI phenomenon, its findings continued to be accepted without much questioning even though both the research design (which relied only on product measures) and its conceptual approach (as noted by Knight and Calantone (2000) could be challenged in light of the findings of several subsequent studies. In this context, the present paper presents further evidence that both country image and product beliefs act simultaneously to influence product evaluations.

Managers are reminded by these findings that country image plays an important role in consumers' market behavior. Marketers can benefit from emphasizing and promoting PCI information when their country enjoys positive stereotypes, or minimizing their reference to such information if their country suffers negative biases. In the latter case, they should look for other ways to offset the negative country image by promoting other attributes, such as quality and price, or, in the case of products that are designed or assembled in, or use parts or technologies from, many different countries, select for emphasis the country image that is likely to resonate more positively with their target market (the South Korean-made Daewoo's advertising, whose advertising stresses the car's "British handling, German engineering, and Italian styling," is a case in point that illustrates this approach).

When perceptions of a poor image are widespread and affect a broad range of products, investment in a collective promotional or product improvement effort (depending on whether the problem is perceived or real) at the trade association or country level may be necessary. This issue is important for policymakers who need to coordinate the development of country equity (Papadopoulos and Heslop, 2002) across both product classes and various levels of actors within a country (e.g. government-associations-producers) in order to enhance its effectiveness in today's intensely competitive global arena. The growth of country-level competition, as a result of the explosive increase of "country (or other 'place') branding" campaigns, may have at least two effects in this context. First, it is likely to attract more and more countries to engage in systematic and long-term promotional campaigns, thus further intensifying international competition, especially among developed nations, in a variety of areas ranging from export support to attracting inward tourism and foreign direct investment. Second, it is likely to further raise awareness of the importance of product origins among consumers, as they try to evaluate products in conditions of cognitive overload, by making "country of origin" a more prominent criterion in today's increasingly complex markets.

Like most studies, the present one has both limitations and strengths. Potential issues arising from our choices in study design (e.g. the use of global product evaluations) were addressed earlier. On the whole, however, the design was in line with earlier studies and followed various well-established traditions in the PCI research field. Further, the study had several strengths including the use of distinct product and country measures, a relatively large sample of actual consumers (by contrast, a common criticism of research in this field is the extensive use of student samples), and the use of detailed and robust statistical approaches for testing the hypotheses. From the methodological and analytical perspectives, one limitation is the use of

non-experimental data in modeling causal relationships. This is somewhat attenuated, though not completely eradicated, through the use of structural equation modeling. Another limitation pertains to the relatively low multiple squared correlations of some items, and also the somewhat low reliability coefficient for affect in the case of Japan (0.59; three other coefficients, two for Japan and one for Sweden, were just below the threshold of 0.60). Clearly, future research will benefit from further improvements in the measures of country image that tap into the various facets of the construct.

For validation, future research would also benefit from replicating this study in different research settings and across different situations, possibly using more than the two origin countries. Our findings are based on consumers' attitudes toward two countries that have traditionally enjoyed positive images and positive product beliefs. It would be interesting, for example, to replicate the study using countries in which the bias is negative to see if the same evaluation structure holds. Furthermore, beliefs about the country and beliefs about the country's products are sometimes incongruent (Iranian rugs, for example, are generally accepted as being of high quality, while Iran itself often suffers from a negative image). What happens to the consumer's cognitive process in such cases? Given the simultaneous processing of product beliefs and country image, could positive perceptions about a country's flagship products help to attenuate the negative image that consumers may have formed in terms of both the cognitive and affective components? While the work of Klein *et al.* (1998), Gonzalez *et al.* (2002), and a handful of other researchers has begun to point the PCI field in this direction, these and many other similar questions remain unanswered (and often unasked) and comprise fertile ground for future research.

Note

1. As in marketing, there is confusion in the PCI literature in the use of such terms as "beliefs" and "attitudes." Johansson (1989), Papadopoulos *et al.* (1988), and their associates, as well as this paper, use the classic model in which "attitude" is a composite term comprising cognitive [beliefs], affective, and conative dimensions. By contrast, Han (1989) and many others use the alternative definition of "attitude," as a unidimensional concept synonymous with "predisposition" and distinct from "beliefs," Here, we use the classic conceptualization except when discussing a particular author's work, in which context we use his/her approach to avoid altering the original intent of that work.

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Appendix

Table AI.
Evaluation of the measurement models

Item description	Multiple sqrd corr JP	Multiple sqrd corr SW	Std loading JP	Std loading SW	Std error JP	Std error SW	*t*-value JP	*t*-value SW	α JP	α SW
Country beliefs									0.69	0.80
Rich-poor	0.20	0.43	0.521	0.687						
Technologically advanced-not advanced	0.31	0.40	0.673	0.679	0.107	0.090	8.49	11.77		
High-low level of education	0.34	0.48	0.797	0.873	0.169	0.086	8.38	13.49		
People affect									0.59	0.67
Trustworthy-not trustworthy	0.12	0.31	0.599	0.762						
Hard working-not hard working	0.24	0.21	0.601	0.598	0.106	0.091	4.31	8.96		
Likeable-not likeable	0.13	0.22	0.665	0.623	0.162	0.081	6.23	8.55		
Desired interaction									0.66	0.73
We should-should not have closer ties with-	0.29	0.37	0.743	0.803						
Ideal-not ideal country	0.12	0.25	0.586	0.600	0.087	0.064	7.25	10.88		
Would-would not welcome more investment from-	0.24	0.34	0.612	0.623	0.123	0.069	8.79	11.29		
Product beliefs									0.85	0.88
Unreliable-reliable	0.61	0.65	0.861	0.897						
Poor-good workmanship	0.42	0.58	0.690	0.819	0.055	0.048	14.91	19.72		
Poor-good quality	0.59	0.57	0.858	0.816	0.058	0.048	18.31	19.62		
Product evaluation									0.82	0.79
Willing-not willing to buy (country) products	0.50	0.44	0.784	0.756						
Would-would not be proud to own products of-	0.53	0.41	0.875	0.773	0.072	0.077	15.93	12.44		
Products of – are–are not for people like me	0.37	0.30	0.658	0.633	0.062	0.068	13.09	10.99		
Familiarity										
I know-do not know (country) products very well										

Notes: Japan: $\chi^2 = 143.49$ df = 80 $p < 0.001$ $\chi^2/\text{df} = 1.79$ NFI = 0.92 NNFI = 0.95 CFI = 0.96; and Sweden: $\chi^2 = 166.99$ df = 80 $p < 0.001$ $\chi^2/\text{df} = 2.09$ NFI = 0.93 NNFI = 0.95 CFI = 0.96

	Japan				Sweden			
	χ^2 (free corr.)	χ^2 (corr.=1)	Diff. in χ^2	R	χ^2 (free corr.)	χ^2 (corr.=1)	Diff. in χ^2	R
CB-PA	16.82	30.94	14.12	0.30	28.33	101.28	72.95	0.53
CB-DI	23.50	60.84	37.36	0.39	26.77	194.49	167.72	0.71
CB-PB	14.25	57.24	42.99	0.39	11.55	80.11	68.56	0.47
CB-PE	11.58	36.63	25.05	0.30	12.03	55.05	43.02	0.40
PA-DI	35.99	110.64	74.65	0.69	26.44	126.85	100.41	0.65
PA-PB	6.26	10.91	4.65	0.15	11.93	40.81	28.88	0.33
PA-PE	6.72	36.95	30.23	0.40	18.09	56.27	38.18	0.41
DI-PB	13.71	28.25	14.54	0.23	10.52	87.51	76.99	0.52
DI-PE	13.39	62.19	48.80	0.43	8.55	76.76	68.21	0.53
PB-PE	6.23	106.10	99.87	0.53	17.47	121.78	104.31	0.58

Note: Differences in $\chi^2 > 3.84$ indicate that the constructs are statistically different

Table AII.
Evidence of discriminant validity