**Facets of country image and brand equity: Revisiting the role of product categories in country-of-origin effect research**

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**Abstract**

The country-of-origin effect is a topic central to the field of international marketing. Country of origin has been found to exert a particularly potent effect on consumer evaluation in situations where there is a strong link between a country and a particular product category. The present study provides further insight into how this particular effect can be understood. Drawing on a novel conceptualization by Josiassen et al. (2013) of how country image and product categories interact, this study tested the relative evaluative relevance of product category with respect to estimates of brand equity across a variety of product categories. The findings suggest that facets of a country’s image that are more closely related to the evaluation situation exert a greater influence on the evaluation of brands. This result encourages scholars as well as practitioners to re-evaluate which situations might cause the country-of-origin effect to hold managerial relevance, and paves the way for new paths toward a more comprehensive understanding of the effect.

**Keywords**: country-of-origin effect, country image, brand equity, product category.

**1. Introduction**

The country-of-origin effect (COE) describes the situation in which a consumer’s judgment can be altered due to an association between a product, service, or brand and a place. This concept has been a central issue in the international marketing research literature for some fifty years (Magnusson et al., 2011a; Pharr, 2005; Usunier, 2006). Indeed, it has received a rather impressive amount of attention, sometimes even being referred to as a staple of international marketing research (Tan and Farley, 1987; Usunier, 2006). Yet, this attention has also been coupled with a fair amount of criticism that has pointed to a great variety of issues—from the lack of theoretical development in the field (Bloemer et al., 2009) to methodological issues (Bilkey and Nes, 1982; Samiee, 2010) — and questioned the practical relevance of the effect (Samiee, 1994; Usunier, 2006; 2011).

One key to understanding how an association to a place can affect consumer judgment is the influence of categories (Josiassen et al., 2013). This influence can be exemplified by examining the case of Colombian coffee. For consumers in Europe and North America, the image of Colombia as a country may evoke associations with violence, drug cartels, sunny beaches, and the sprawling cityscape of Bogota—imagery that in many cases may hinder the attachment of positive characteristics to products associated with the country. In the product category of coffee, however, the association with Colombia can have quite a potent positive effect on consumer evaluation (Kotler and Gertner, 2002), suggesting the strong potential effect of categories.

Numerous studies have investigated the effect of categories and their role in the context of origin effect (Diamantopoulos et al., 2011; Josiassen et al. 2013; Niffenegger et al., 1980; Roth and Romeo, 1992). It has been suggested that the COE is stronger for categories that are relatively closely associated with a particular place (O’Shaughnessy and O’Shaughnessy, 2000) as exemplified in the case of the country Colombia and the product category coffee. In a recent study, Josiassen et al. (2013) developed and tested a framework that divided the basis of the association to a place into three facets: general place image, product image, and category image. All three facets exert an effect on a consumer’s summative judgment of product quality. In doing so, this model can explain variations in the effect of the association with a place on judgment with greater accuracy than models that view categories as a moderator. What is particularly interesting about Josiassen et al.’s framework is that the relative significance of these different facets can be compared.

The present paper extends the work of Josiassen et al. (2013) by testing the premise of their framework on a number of brands as opposed to making general judgments about product quality and purchase intentions. While Josiassen et al. focused on consumers’ product evaluations, the present paper is concerned with consumers’ attitude towards brands. In recent decades, several authors have emphasized the centrality of brand in the context of COE, suggesting that the “origin” in country of origin should be understood as perceived brand origin (Pharr, 2005; Thakor and Lavack, 1996). In effect, consumers appear to “place” products and services based on the perceived origin of the brand. Accordingly, brand origin can be understood simply as the place a consumer associates with a brand (Magnusson et al., 2011). Considering the immense commercial relevance of brands for marketing success (Ambler, 2003; Keller, 1993), the issue of how various facets of place–category interrelations influence brand equity has emerged as an interesting avenue for advancing the knowledge of origin effects in general. Furthermore, it can be argued that brand evaluation constitutes a type of evaluation that has greater applied relevance in a marketing context than hypothetical product evaluations, as it provides a closer proxy for consumer behavior.

It seems likely that consumers’ perceptions of brand quality are more strongly influenced by their opinions about specific product categories from the brand’s country of origin than by their more general perceptions of products from the country or their general view of the country. In this article, this idea is tested by means of an experimental study. In the following section, a theoretical model and a set of hypotheses are developed and presented. The method is then described, including a description of the participants and the specific test procedures. The results are presented thereafter, lending support for this idea and the key hypotheses. These findings have a number of implications for theory and practice, some of which are explored in the last section.

**2. Conceptual framework and hypotheses**

*2.1. On the practical relevance of the origin effect*

The question of when origin effects constitute an important aspect in a marketing context remains a difficult one to answer, despite researchers having investigated it for some time. On a general level, it has been observed that the origin effect (i.e., the way in which the image of a place manifests itself in the context of consumer evaluation) greatly depends upon the perceived level of general development of the country from which a product, service, or brand originates (Chu et al., 2010; Cordell, 1992; Samiee, 1994; Verlegh and Steenkamp, 1999; Zeugner-Roth and Diamantopoulos, 2009). At first glance, this principle seems valid, since consumers might expect higher quality products and services from a country they perceive to be more economically and technologically developed. However, this relationship between a country’s development and the perceived quality of its exports is grounded in very large differences in development, such as those between “developed” and “developing” countries. Although this connection is useful for marketers on a practical level, this knowledge only provides a very general idea of when and how an origin effect can determine marketplace success. Moreover, the dichotomy of “developed” and “developing” has become much more tenuous in recent years. Indeed, this dichotomy could be replaced with the more apt distinction between developed, transitional, and pre-transitional economies. In addition, other changes in international trade patterns linked to globalization and the evolution of value-chain configurations have made it difficult for the core concepts of origin effect research to remain relevant.

In the past, one such conceptual problem that caused some difficulty was the poor accuracy of consumers’ origin recognition in terms of brands (Samiee et al., 2005) and products (Balabanis and Diamantopolous, 2008). If consumers are unable to correctly identify the country of origin of brands (Samiee et al., 2005) and, thus, do not consider it in a typical purchase situation (Balabanis and Diamantopolous, 2008), one may question the relevance of origin effect. For non-branded products, the origin effect may indeed have lost its relevance (Balabanis and Diamantopolous, 2008). However, the increasing saturation of the commercial world by brands and the logic of branding has emerged as a dominant theme in marketing discourse and practice. Changing value-chain configurations, such as the increasing specialization and division of activities in production chains, have led some scholars to suggest that the focus of origin effect research should shift away from products and toward brands (Josiassen and Harzing, 2007; Pharr, 2005; Thakor and Lavack, 2003; Usunier, 2011). Furthermore, the generally poor level of accuracy in brand origin recognition does not necessarily mean that the origin effect is irrelevant. For instance, Magnusson et al. (2011) found that consumers were influenced by a brand’s *perceived* association with a country, even if that association was not based on the actual value-chain configuration of the brand’s products or services. In effect, origin effect can have a great influence on consumer evaluations, even if the brand’s origin is incorrectly identified.

*2.2. Contingencies of the origin effect*

The conceptual shift toward a focus on brand origin and the acknowledgment that origin is determined by consumers’ perceptions have enabled origin effect to retain its relevance. Yet the greater question remains: under what conditions can an origin effect serve as a critical determinant of consumer judgment, attitude formation, and decision making?

In many ways, the observations made by scholars when the concept of origin effect was in its infancy still hold. A stream of research on origin effect has focused on how the effect is moderated by a number of conditions that affect how a country’s image can influence an evaluation situation. For example, researchers have found that the characteristics of the consumers making the evaluation (Ahmed and d’Astous, 2008), such as their materialism or ethnocentrism, can influence how the effect manifests itself (Sharma, 2011). Certainly, the characteristics of one’s potential customers are of crucial relevance to any wider marketing intelligence analysis, but other influencing factors may apply across consumer groups. One such factor that has been studied extensively, but is still not fully understood, is the influence of the category of the product, service, or brand being evaluated (Diamantopoulos et al., 2011; Obermiller and Spangenberg, 1989; Pappu et al., 2007; Peterson and Jolibert, 1995; Roth and Romeo, 1992; Thanasuta et al., 2009; Usunier, 2011; Usunier and Cestre, 2007; Wang and Lamb, 1983).

Many studies have been centered on this issue, typically finding that product category does exert a great influence on origin effect (cf. Roth and Romeo, 1992; Thanasuta et al., 2009). There have been numerous suggestions as to how to pinpoint which characteristics of a country’s image prompt divergent outcomes in the association between product and country in terms of the product’s category. Explanatory concepts have included “product–country fit” (Roth and Romeo, 1992), “product ethnicity” (Usunier and Cestre, 2007), “product category image” (Diamantopolous et al., 2011), and “specific product-country image” (Hsieh et al., 2004). All of these conceptualizations imply that the country’s image includes some facet that is specific to a particular product category. Numerous studies have dealt with the issue of product categories as a strong influencing factor in the context of COE, but none have tested their influence across a large number of categories. Insch and McBride (2004) asserted that it may be impossible to arrive at a general understanding of the influence of these factors, as this influence may vary across different contexts. Testing the influence of categories across various categories would be a step toward determining the extent to which categories matter. However, in order to achieve this outcome, we must first understand how the influence of categories can be understood in relation to country image. Country image has been discussed as an antecedent of the COE at least since Akira Nagashima (1970), who defined the concept of country image as the sum of impressions and associations held about a country. This definition bears a great resemblance to how Kevin Keller (1993) defined customer-based brand equity. What the two definitions share is the emphasis upon the perceptual nature of these images, which can lead to a great variation in what consumers actually associate with a given image. Since Nagashima (1970) defined country image as it applies to the COE, there has been some development in how the “source” image of the origin effect is typically conceptualized. A distinction is now made between what consumers generally think of a country, i.e., basic country image (BCI), and what consumers generally think of the products from a given country, i.e., product-country image (PCI) (Zeugner-Roth and Diamantopolous, 2010). The former of these constructs can be aptly defined as “the total of all descriptive, inferential and informational beliefs one has about a particular country” (Martin and Eroglu, 1993: 193), and the latter as “consumers’ perceptions about the attributes of products made in a certain country; emotions toward the country and resulting perceptions about the social desirability of owning products made in the country” (Nebenzahl et al., 2003: 388). It is crucial to note that these two constructs are typically not used in combination in the extant literature, but rather seen as different ways of conceptualizing the underlying image construct from which a potential origin effect is derived.

The distinction between the more general BCI and the more product-evaluation-specific PCI is an interesting problem in itself. But the more pressing issue addressed by the present work is the conditions that underlie and precede the origin effect. As some scholars have suggested (Diamantopolous et al., 2011; O’Shaughnessy and O’Shaughnessy, 2000; van Ittersum et al., 2003), a country association might prove to be most relevant when a consumer makes a perceptual connection between a country and a product category. In the present paper, this factor is approached as a characteristic of a country’s image, the basic assumption being that attitudes toward a given country range from “good” to “bad” (cf. Ajzen, 2001)—a view that is widely accepted. More specifically, this suggests that it is possible for consumers to hold divergent attitudes toward a country’s BCI, its PCI, and the evaluative relevance of a country with respect to each specific product category (from here on referred to as category-country image (CCI)). In the present study, these three levels of country image were tested for their relative evaluative relevance with regard to brand equity (H1a, H2a, & H3), and for their interrelation (Hypothesis H1b, H1c, & H2b). For example, one could argue that France as a country may evoke an attitude based on reference to the country as a whole, products from the country in general, and products in a specific category. In this study, these three levels were represented by the constructs “basic country image” (BCI), “product-country image” (PCI), and “category-country image” (CCI) in accordance with the model presented by Josiassen et al. (2013).

Previous studies have shown that general attitudes toward a particular country tend to influence the evaluation of products associated with that country, regardless of the level of consumer knowledge and experience of the products themselves (Laroche et al., 2005). This suggests that BCI affects brand equity, regardless of the influence of the PCI and CCI constructs. Meanwhile, most origin effect research has identified PCI as the source construct for origin effect (Zeugner-Roth and Diamantopolous, 2009). Both of these constructs, however, operate on a general level and fail to fully account for the influence of product categories. In practice, there are numerous situations in which consumers could evaluate the BCI and PCI as poor, but nevertheless positively evaluate products from a specific product category from the same country of origin. Examples of this principle can be found with Colombian coffee (Kotler and Gertner, 2002) and Russian vodka (Nebenzahl et al., 1997). There are also cases in which an association to a country which transfer positive perceptions to a brand based on BCI and PCI can be amplified to an exceptionally positive effect on the evaluation of particular product categories associated with that brand, as in the case of German automobiles (Thanasuta et al., 2009) or French cosmetics (Leclerc et al., 1994).

The three constructs can be thought of as different levels of place image that result from various interrelations between place and brand, which are simultaneously activated in an evaluation situation (Hsieh et al., 2004; Josiassen et al. 2013). These levels represent the fact that, when combined, two symbols can emerge or manifest as something that deviates dramatically from the sum of its parts. This new meaning that emerges from the combination of symbols is sometimes referred to as the formation of iconicity (Deacon, 1997: 60). In the present study, the first level is represented by the BCI construct alone; it captures consumers’ general perceptions of a country, without considering any particular context (e.g., product). The second level is represented by the PCI construct through which consumers evaluate countries based on their perceived capacity to produce quality products. In other words, evaluation of stimuli can be contextual, i.e. a country’s meaning may shift if it is evaluated in the context of product quality as opposed to in a more general sense. Sometimes, a combination of different stimuli may lead to a completely different evaluation than the same stimuli separately (Deacon, 1997: 71). It may even completely alter the meaning of the different stimuli. The concept of iconicity refers to such an effect, i.e. altering the meaning a particular country carries as a result of its interrelation with a particular product category (cf. Keller, 1993). Numerous authors have observed such a phenomenon in highly diverse contexts. For instance, Martínez and Alvarez (2010) noted that even though Turkey evoked negative responses from respondents when evaluated in general, it was still highly regarded as a potential tourist destination. Here, “Turkey” in itself was negative, but became positive when thought of as a “destination.”

The third level of image is represented by the CCI. The same principle applies as for the second level (PCI) in that the country image should be thought of as made relevant in a specific context, but the image is here comprised of a combination of a country image and a specific product category rather than products in general. In essence, this level captures the effect on evaluation evoked by, for instance, France combined with automobiles or fashion apparel. Such combinations of countries and categories potentially affect attitude formation in a variety of ways. The underlying logic of this argument is that the combination of a country and a product category activates a set of associations in the consumer’s mind that potentially diverges from the associations he or she would make with respect to the country alone.

*2.3. Theoretical model and hypotheses*

The first premise of the present study is the postulation that the three levels of place image, defined above as different kinds of interrelations between country and product, function as facets of the relationship between a country and a brand. While Josiassen et al. (2013) used the term “origin image” to refer to the construct at source of the COE, this paper exclusively views place at the country level. Therefore, the different levels of place image will be referred to as levels of *country* image. The second step is accounting for how these different levels of country image influence brand equity, as well as each other. Figure 1 displays a simplified theoretical model outlining the relationships between the latent constructs involved. Here, the constructs are assumed to be interrelated, exerting a simultaneous influence on brand equity, with the more general levels of country image also exerting influence upon the more specific levels.

**FIGURE 1 HERE**

Based on the theoretical model, a set of hypotheses was formulated. Hypothesis 1 outlines the relationship between the first, and most general, level (BCI) and the other variables. Based on Laroche et al. (2005), this variable is assumed to influence brand equity (BE) via a general affective attitude toward the country, which is transferred to the brands associated with the country (H1a). This variable is also assumed to influence the other levels of interrelation in the model (H1b and H1c).

**H1a:** The general, or basic, country image (BCI) influences the brand equity (BE) of brands associated with the country.

**H1b:** Basiccountry image (BCI) influences product-country image (PCI)

**H1c:** Basic country image (BCI) influences category-country image (CCI)

In line with the bulk of the literature on origin effect (cf. Baldauf et al., 2009; Bilkey and Nes, 1982; Nebenzahl and Jaffe, 1996; Zeugner-Roth and Diamantopolous, 2009), the PCI variable is hypothesized here to influence BE (H2a). This variable is also assumed to affect the CCI variable as the closest superior image level (H2b).

**H2a:** Product-country image (PCI) influences the brand equity (BE) of brands associated with the country.

**H2b:** Product-country image (PCI) influences category-country image (CCI)

The final and most specific level is represented by the CCI variable, which is hypothesized to influence the dependent variable BE (H3) in accordance with findings reported by Roth and Romeo (1992) and Diamantopolous et al. (2011).

**H3:** Category-country image (CCI) influences the brand equity (BE) of brands associated with the country.

In addition to addressing the central issue of how much evaluative relevance each of these levels holds in the context of attitude formation toward a brand associated with a country, assessing the validity of these hypothesized relationships would answer the following question: are these three image facets interrelated and, if so, to what degree? The following chapter outlines the strategy and procedure used to empirically investigate the above hypotheses.

**3. Method**

*3.1. Test design*

To test the postulated hypotheses, an experiment was conducted in which all participants assessed the same number of country–brand pairs using a computerized questionnaire. The countries were assessed with respect to BCI, PCI, and CCI, and the brands were assessed with respect to BE and familiarity which served as an exclusion criterion. The selection of the country–brand pairs used in the experiment was based on the results of three preliminary tests, as described below.

The first test used an open-ended interview format to ask ten university students to provide examples of brands that they perceived to have strong associations with a country, as well as brands that they perceived to lack such an association. The students were also asked to give examples of countries they perceived to have a strong or weak image and to provide reasons for their judgments. The students were also prompted to give examples of countries they perceived as evoking positive or negative connotations in relation to a particular category of products. The answers were used to derive a large sample of country–brand pairs. The sample was thus generated without direct influence from the researchers in terms of which countries and brands were selected and how they were thought to perform across the relevant variables. From this large sample, a subsample was selected that had a great degree of variation in terms of BCI, PCI, CCI, and BE, ranging from negative to positive.

This subsample of 12 different countries and 23 different brands was used for a second preliminary test in which a paper questionnaire was distributed to 60 university students. This test was designed to give an indication of how the countries might perform at the different levels of country image.

Based on the results of the second pre-test, a new set was selected in order to achieve a satisfactory degree of variance in each examined variable, i.e., that no one level of country image would be too similar across the stimuli. This new set consisted of seven countries that had displayed varying levels of BCI, PCI, and CCI for the various categories of products included in the pre-test. Between four to six brands from each of the seven countries were selected. This selection of country–brand pairs was subjected to a third preliminary test, using the web-based customizable survey tool that was to be used in the main experiment. Twenty-three respondents participated in this third test, which demonstrated that the web-based tool functioned satisfactorily, was easy to comprehend, and did not contain questions that respondents found to be ambiguous. The three preliminary tests indicated that the measurement tool functioned in a satisfactory manner and that the countries selected as stimuli would have enough variability in BCI, PCI, and CCI to yield interesting results.

*3.2. Questionnaire*

Only minor changes were made to the questionnaire following the third pre-test. Table 1 features the final list of 38 country–brand pairs used in the main experiment. Because most of the respondents were Swedish, the test did not include any Swedish brands. This choice was made to avoid introducing respondents’ biases toward products from their own country, which is a well-documented risk in research on origin effect (cf. Balabanis and Diamantopolous, 2004; Batra et al., 2000; Verlegh, 2007).

**TABLE 1 HERE**

As origin effect can also negatively influence an individual’s attitude toward products or brands (Chu et al., 2010; Dakin and Carter, 2010), a bipolar Likert-type evaluation scale ranging from negative to positive was employed. The response alternatives were the same for all items. Respondents used a Likert-type scale to indicate a score from 1 to 7, ranging from completely disagree (1) to completely agree (7), with a neutral middle point (4); the exact wording of the scales can be viewed in Appendix A. In the test, all 38 country–brand pairs were assessed with 3 items measuring BCI, 3 items measuring PCI, 3 items measuring CCI, and 3 items measuring BE. The reason for using 3 items per construct was to increase the reliability of the questionnaire (Rigdon, 2012) without making the survey too time-consuming to fill out. In addition to these 3 item measures, the scale featured a familiarity variable. This variable was used as an exclusion criterion so that respondents could not rate brands with which they were not familiar. Any brand rated “1” on the familiarity item was automatically excluded from the rest of the questionnaire. In total, the questionnaire contained 401 items.

*3.3. Participants*

Respondents were recruited via advertising on notice boards in public transportation hubs, university campuses, and other public venues in the greater Stockholm region. The advertisement was vague enough to not give the test away, but mentioned that the test would be about brands and that the participants would be reimbursed. A total of 100 respondents were recruited using this procedure (29 men and 71 women with a mean age of 26 years). Fifty-two of the respondents were Swedish; the rest of the respondent population featured a wide variety of nationalities.

*3.4 Procedure*

The respondents were tested individually in a room with a computer running the web-based questionnaire. Before starting, the respondents were provided with standardized instruction on how to use the computer interface to fill out the questionnaire. For all respondents, the order of blocks of items was the same. They were first tested on their familiarity with the brands included in the study. The BE of all brands was then assessed, followed by the BCI and PCI for all the countries, and the CCI for all the product category and country pairs. The rationale for this order was to obtain the equity rating before the origin was made explicit, since the simultaneous presentation of brands and countries has been identified as a potential source of bias in origin effect studies (Samiee, 2010).

Within each block of items, the order in which the countries or brands appeared was randomized. Each brand equity item was presented together with the brand’s official logo, and each country item was presented along with the country’s national flag. The test took approximately 45 minutes to complete, including a short break once half of the questionnaire had been answered. During the break, respondents left the test room and were asked a series of questions unrelated to the test. This served the purpose of distracting the respondents so that they would be less likely to remember their ratings of any individual brands by the time they started rating the countries.

Directly following the main test, the respondents were subjected to a debriefing interview of approximately 20 minutes in order to ensure that they had understood the questions and the rating procedure correctly. All of the respondents reported having understood the test in the manner in which it was intended. These interviews also gave the respondents an opportunity to offer their views on various concepts related to origin effects, for example, how they would define origin in a geographically distributed value chain or which other nations apart from those included in the test had a particularly strong CCI in relation to specific product categories.

**4. Results**

The data were subjected to structural equation modeling, partial least squares approach (PLS-SEM; Hair et al., 2012), using the software package ‘Smart PLS’ (Ringle et al., 2005). PLS-SEM has several advantages over the more traditional covariance-based SEM approaches (CB-SEM), namely, (1) not having the same distributional requirements as CB-SEM (Chin, 1998), (2) requiring only a relatively small sample (Barclay et al., 1995; Hair et al., 2011), and (3) being more robust in the face of potential interdependencies between observations (Chin and Neusted, 1999; Lohmöller, 1989; Urbach and Ahlemann, 2010; Wold, 1980).

The fits of the tested models were evaluated using several metrics recommended by Hair et al. (2012). The measurement model (Table 2) was found to be robust, as all items were found to have the highest loading on the variable they were meant to represent (Chin, 1998; Grégoire and Fisher, 2006), with no item loading in excess of 0.507 toward a variable other than its target variable. All variables were also effectively represented, as the lowest loading between any item and its target variable was 0.814, which is well above the recommended cutoff value of 0.7 (Hulland, 1999).

**TABLE 2 HERE**

The characteristics of the inner model, displayed in Table 3, include the composite reliability, the average variance extracted (AVE), and the correlation between construct scores. The composite reliability, or the internal consistency reliability, of the model was found to be good, with all variables loading in excess of 0.890—higher than the recommended minimum of 0.7 (Bagozzi and Yi, 1988). The squared correlation between constructs did not exceed the average variance extracted (AVE) in any of the cases, indicating that the model meets the Fornell-Larcker criterion for discriminant validity among latent variables (Fornell and Larcker, 1981; Hair et al., 2012).

**TABLE 3 HERE**

Altogether, the quality control suggested that the structural model had high quality in terms of its discriminant validity, internal consistency reliability, and indicator to latent construct representation. The full structural model is illustrated in Figure 2 and summarized in Table 4 below.

**FIGURE 2 HERE**

**TABLE 4 HERE**

The model seen in Figure 2 and described in Table 4 illustrates the relationships between the three variables representing the three different levels of place–product interrelations—BCI, PCI, and CCI—and the effect they exert upon the endogenous construct BE. The degree of explained variance (R2) suggests that the model explains about a quarter of the variance in brand equity between all of the constructs. In order to gain a more detailed understanding of the model, the effect sizes (f2) and predictive relevance (q2) of the exogenous constructs were also calculated.

Taken together, these values suggested that the influence exerted by the most general level of place–product interrelation, BCI, on BE was irrelevant in terms of its effect size and predictive relevance, even though its path coefficient attained statistical significance. The middle level, PCI, did have a small effect according to the established criteria (Cohen, 1988). Finally, the most specific level of place–product interrelation, CCI, had a medium effect (Cohen, 1988) on BE. The cumulative effect of all facets of country-image included in the study (BCI, PCI, and CCI) was close to what earlier meta-analysis found to be typical in the context of origin effect research (Peterson and Jolibert, 1995).

In terms of the interrelations between the different levels of image, it was postulated that the more general levels would have an effect on the more specific ones. This was shown to be partially correct; BCI did exert a considerable effect on PCI. However, the effect on the strongest predictor of BE—CCI—was inconsequential in the case of BCI and quite small (Cohen, 1988) in the case of PCI. Overall, these results suggest that the constructs of BCI and PCI are indeed related, whereas CCI constitutes an independent construct.

As for the hypotheses, the results lent little support to H1a, as the effect of BCI on BE was negligible. BCI did, however, have a considerable effect on PCI, lending support to H1b. For CCI, however, the effect of BCI was negligible and therefore inconsistent with H1c. PCI, which was to a large degree predicted by BCI, had a small but significant effect on BE, indicating support for H2a. It also had a medium-sized effect on CCI, supporting H2b. Finally, CCI had a medium-sized effect (Cohen, 1988) on BE, emerging as the strongest predictor of the dependent variable and supporting H3.

**5. Discussion and conclusions**

*5.1. Theoretical contributions*

The results of the present study suggest that the origin effect, here defined as a perceived association between a brand and a place, is to a great extent contingent on the existence of a perceptual connection between the place and the specific product category the brand represents. In addition, the origin effect also appears to be independent of a more general attitude toward the country or even products from that country. The structural equation modeling analysis used to compare the predictive relevance of the BCI, PCI, and CCI, thus, supports Josiassen et al.’s (2013) assertion that those place image facets that more directly apply to the evaluation situation exert a greater influence on a consumer’s evaluation. The results of this study also extend Josiassen et al.’s (2013) work by demonstrating that this principle applies when real brands, which are recognized by and available to consumers, are being evaluated. The findings also lend empirical support to O’Shaughnessy and O’Shaughnessy (2000), who suggested that the origin effect is primarily of practical relevance in marketing in cases in which a place is associated with a specific product category. This assertion is supported in this study by the relatively strong evaluative relevance of CCI for BE, when compared to BCI and PCI. The findings challenge Insch and McBride’s (2004) assertion that COE may only be understandable on a case-by-case basis due to the many moderating variables involved. By including a large variety of brands and categories in the stimuli, the present study uncovered a more general tendency in the relative impact of BCI, PCI, and CCI across various product categories. Moreover, the results indicate that there is a critical difference in that CCI exerts a stronger effect on consumer evaluation than the two other country-image levels of BCI and PCI.

The general attitude toward a place, here operationalized using the variable BCI, retained no predictive relevance in the presence of the PCI and CCI variables. The variable PCI did provide a degree of evaluative relevance, albeit on lower level than that of CCI. Although this study analyzed the effects on brands and not on products, the results showed many similarities to those of Josiassen et al. (2013). One difference, however, is that the present study suggests that CCI is a more independent characteristic vis-á-vis BCI and PCI than Josiassen et al.’s (2013) study indicated. This discrepancy could be due to the present study’s empirical investigation of a variety of brands rather than a single category of products. It could be argued that the product category of consumer electronics used by Josiassen et al. (2013) is a category for which BCI, PCI, and CCI are highly interrelated. BCI and PCI tend to be higher for “more developed” countries (Bilkey and Nes, 1982), and the CCI for electronics could correlate with expectations that a country with a well-developed high-tech industry will typically be “more developed.” In the present study, the use of multiple categories of products helped to mitigate the impact of the particularities of any one product category on the results.

Altogether, the results suggest that the origin effect, in terms of BCI, constitutes a relevant factor in consumers’ evaluation of and attitude formation toward brands, albeit with a limited effect size compared to the more specific image levels of PCI and CCI. The results also demonstrate that this principle applies even when a large variety of product categories are represented in the stimuli. This variety makes it unlikely that this effect was the result of a particular characteristic of a single product category. Another interesting take-away is the fact that the different tested levels of PCI gained predictive relevance as they became more specific to the evaluation situation. Taken at face value, this tendency invites the conclusion that information that applies more specifically to a given evaluation situation bears greater weight in the formulation of a consumer’s attitude toward the object being assessed. If demonstrated to be robust, this observation will have implications beyond the realm of marketing, as it reflects how information that is more applicable to a given evaluation situation achieves stronger evaluative relevance. It appears that origin matters, and that it matters increasingly when it prompts some pre-understanding of its meaning, for example, in matching a place and a brand based on the mutual relevance of a category. In this example, the product category becomes the path through which an association to a place becomes relevant to the evaluation situation. Taking this one step further, perhaps origin is unlikely to exert a strong effect in and of itself; rather, it appears that its relevance to the evaluation situation needs to be amplified or activated through an intermediary factor—represented in the present study by a mutual association of a brand and a place with a specific product category.

*5.2. Managerial implications*

At first glance, the general conclusion that marketing managers can derive from these findings is that BCI itself can be disregarded because it has limited direct effect on consumer brand evaluations. This does not imply, however, that the origin of brands is unimportant. Marketing practitioners should indeed take the possible effects of perceived country origin into serious consideration. The relevance and strength of the effect, however, depends on the specific product category to which the brand belongs. For example, a category such as wine benefits more from an association with France than the category of cars. By being aware of these different relationships, i.e., that there are significant differences depending on both the product involved and the category it belongs to, marketing practitioners can adjust how their brand is presented to consumers in a more thoughtful way.

However, even though consumers’ perceptions of the quality of certain categories from a specific place has a stronger influence on their evaluation of a brand than their more general evaluation of products from that particular place, this effect is more limited in scope. It applies only to a particular product category, while the broader PCI applies to a vast array of situations involving all products from a particular country. Hence, PCI may still be a highly relevant concept for brands associated with specific countries.

It could also be argued that a more general principle has been demonstrated in the present study: that origin must be complemented with some means of making it relevant in order to exert a strong effect on the consumer evaluation of brands. In this case, this function was fulfilled by the mediating construct of product category, which simultaneously situates the relevance of a place and makes sense of a brand through categorization. This principle may help marketing practitioners to better understand how references to place may lead to divergent outcomes and to anticipate the effects of such place references.

*5.3. Implications for future research*

As for any study using sample stimuli drawn from a large and diverse population, a key limitation of the present study is the representation of brands generated by the selection strategy used and the impact on generalizability. The authors would, therefore, invite future research that attempts to replicate the findings presented here, using an alternative population of stimuli. This could give some indication of the robustness of the results. Another aspect of this study that warrants further examination is its design, which grouped together several categories, brands, and countries in order to examine the relationships on an *aggregated* level. In this study, this aggregation strategy constituted a vital pre-requisite for providing a contribution that was not intrinsically linked to a particular situation, for instance, to a single category of products. However, this approach did incur some drawbacks; for example, it precluded the use of established scale items in favor of a more abbreviated measurement approach. Any aggregate of a larger variety of stimuli would have put significant strain on the respondents due to the sheer number of items. Researchers approaching this issue should pay close attention to striking a balance between the representativeness of the stimuli and the strength of the measurement instrument employed. Here, another issue that could also make for an interesting area of study is the question of whether psychographic characteristics of consumers, such as cosmopolitanism or ethnocentrism (Cleveland, Laroche and Papadopoulos, 2009) can come to exert a moderating effect on one or more of the relationships demonstrated in the present study. It seems possible that a characteristic such as for instance ethnocentrism could exert an attenuating or amplifying effect on the influence from just one or two of the country image facets examined in the present study.

Given that the result does, to a reasonable degree of accuracy, reflect how meaning attributed to countries comes into play in the formation of consumers’ attitudes toward brands, the managerial implications are straightforward. Association with countries can be leveraged primarily when the category of one’s brand, product, or service offering relates to a country in a way that carries positive and salient meaning for consumers. In this situation, origin does have a strong effect on evaluation. Another interesting avenue for future research would be to further examine origin effects derived from non-country places. Some authors have suggested that the particularities typically attributed to countries as a source of associations affecting consumer evaluations should be attributed to “places” in general (Josiassen et al., 2013; van Ittersum et al., 2003). The present authors concede that countries may be a particularly salient category of place to most consumers, and, as a result, they may be the type of place that has the greatest effect in an evaluation situation.

In this study, the summative effect of associations related to BCI, PCI, and CCI has been postulated to exert an effect on brand equity. It would be interesting to see if this principle can function “in the inverse.” In a recent study, White (2012) tested this idea, finding that country image could be construed as the summative effect of the attitudes toward brands associated with that country. The authors of this study suspect that BCI, PCI, CCI, and the BE of brands associated with the country may develop, in terms of consumer attitudes, in some oscillatory process between the associations with a place and those attributed to brands perceived as originating from that place. The nature of this relationship and the challenges surrounding its study constitutes the frontier of origin effect research. It would be extremely interesting to see how White’s (2012) notion of an inverse origin effect could apply to the model presented here and to Josiassen et al.’s (2013) model, as one may surmise that a country’s reputation could develop through evaluations of individual brands, which influence CCI, in turn affect PCI and ultimately even affect BCI. This point has relevance for the issue of how origin effects are linked to other commercial contexts in which place is important, such as in tourism or place branding. It is the authors’ hope that the present study can function as a springboard for future research targeting this interesting problem.

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**Appendix.**

**Appendix A.** Full item list, featuring all items (i1-i13) representing the four different latent variables and the exclusion criterion “Familiarity”. Each question featured a 7-degree Likert scale response option ranging from “Agree completely” (7) to “Disagree completely” (1).

|  |  |
| --- | --- |
| Variable | Questions (items) |
|  |  |  |  |  |  |  |  |  |
| Brand Equity |  |  |  |  |  |  |  |
|  | i1: "The products of [BRAND] are typically of excellent quality." |  |  |
|  | i2: "[BRAND] is considered by most people to be superior compared to other brands in the same product category." |
|  | i3: "[BRAND] is associated with positive characteristics." |  |  |  |
| Basic country Image |  |  |  |
|  | i4: “My opinion of [COUNTRY] is positive on a general level.” |  |  |  |
|  | i5: “[COUNTRY] is a well-developed and stable country." |  |  |  |
|  | i6: “[COUNTRY] has a great reputation around the world." |  |  |  |
| Product-Country Image |  |  |  |  |  |  |  |
|  | i7: "Goods and services from [COUNTRY] are typically of good quality." |  |  |
|  | i8: "[COUNTRY] is known for exporting better goods and services than other countries." |  |  |  |
|  | i9: "Exports from [COUNTRY] are popular around the world." |  |  |  |
| Category-Country Image |  |  |  |  |  |  |
|  | i10: "[COUNTRY] [PRODUCT CATEGORY] is usually of good quality." |  |
|  | i11: [PRODUCT CATEGORY] is perceived by most people as being a [COUNTRY] specialty." |
|  | i12: "I closely associate [PRODUCT CATEGORY] with [COUNTRY]." |  |  |
| Familiarityy |  |  |  |
|  | i13: “I am familiar with [BRAND]” |  |  |
|  |  |  |  |

**Appendix B**. Descriptive statistics.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | i1 | i2 | i3 | i4 | i5 | i6 | i7 | i8 | i9 | i10 | i11 | i12 | i13 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N - valid |  | 3356 | 3356 | 3356 | 3800 | 3800 | 3800 | 3800 | 3800 | 3800 | 3800 | 3800 | 3800 | 3800 |
| StDev |  | 1.326 | 1.481 | 1.343 | 1.502 | 1.589 | 1.651 | 1.243 | 1.405 | 1.325 | 1.460 | 1.902 | 2.071 | 2.074 |
| Mean |  | 5.094 | 4.771 | 5.097 | 5.108 | 5.091 | 4.731 | 5.364 | 4.840 | 5.409 | 5.192 | 4.864 | 4.686 | 5.499 |
| Kurtosis |  | -0.189 | -0.285 | -0.029 | 0.006 | 0.160 | -0.749 | 0.315 | -0.332 | -0.069 | -0.149 | -0.906 | -1.129 | 0.135 |
| St.err Kurt | 0.085 | 0.085 | 0.085 | 0.079 | 0.079 | 0.079 | 0.079 | 0.079 | 0.079 | 0.079 | 0.079 | 0.079 | 0.079 |
| Skew |  | -0.438 | -0.383 | -0.507 | -0.830 | -0.785 | -0.471 | -0.728 | -0.347 | -0.617 | -0.611 | -0.524 | -0.460 | -1.263 |
| St.err Skew | 0.042 | 0.042 | 0.042 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 | 0.040 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Appendix C.** Item intercorrelations.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  i1  |  i2  |  i3  |  i4  |  i5  |  i6  |  i7  |  i8  |  i9  |  i10  |  i11  |  i12  |  i13  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  i1  |  1.000  |  |  |  |  |  |  |  |  |  |  |  |  |
|  i2  |  0.675  |  1.000  |  |  |  |  |  |  |  |  |  |  |  |
|  i3  |  0.784  |  0.685  |  1.000  |  |  |  |  |  |  |  |  |  |  |
|  i4  |  0.200  |  0.105  |  0.209  |  1.000  |  |  |  |  |  |  |  |  |  |
|  i5  |  0.202  |  0.092  |  0.191  |  0.615  |  1.000  |  |  |  |  |  |  |  |  |
|  i6  |  0.175  |  0.136  |  0.187  |  0.628  |  0.624  |  1.000  |  |  |  |  |  |  |  |
|  i7  |  0.287  |  0.172  |  0.272  |  0.532  |  0.504  |  0.458  |  1.000  |  |  |  |  |  |  |
|  i8  |  0.216  |  0.242  |  0.223  |  0.401  |  0.416  |  0.428  |  0.723  |  1.000  |  |  |  |  |  |
|  i9  |  0.227  |  0.196  |  0.278  |  0.337  |  0.306  |  0.338  |  0.609  |  0.673  |  1.000  |  |  |  |  |
|  i10  |  0.474  |  0.373  |  0.428  |  0.342  |  0.232  |  0.245  |  0.423  |  0.352  |  0.345  |  1.000  |  |  |  |
|  i11  |  0.319  |  0.362  |  0.300  |  0.165  |  0.059  |  0.131  |  0.206  |  0.228  |  0.251  |  0.725  |  1.000  |  |  |
|  i12  |  0.322  |  0.337  |  0.313  |  0.179  |  0.050  |  0.108  |  0.217  |  0.198  |  0.249  |  0.702  |  0.886  |  1.000  |  |
|  i13  |  0.411  |  0.290  |  0.430  |  0.124  |  0.131  |  0.076  |  0.198  |  0.157  |  0.223  |  0.263  |  0.186  |  0.209  |  1.000  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Appendix D.** BCI (i4, i5 & i6) and PCI (i7, i8 & i9) distribution across countries.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| COUNTRY | Item | x̄  | σ | Item | x̄ | σ  |
|  |  |  |  |  |  |  |
| Finland | i4 | 5.48 | 1.23 | i7 | 5.42 | 1.06 |
|  | i5 | 6.00 | 0.97 | i8 | 4.55 | 1.19 |
|  | i6 | 5.28 | 1.30 | i9 | 4.59 | 1.22 |
|  |  |  |  |  |  |  |
| France | i4 | 5.37 | 1.33 | i7 | 5.58 | 0.90 |
|  | i5 | 5.37 | 1.19 | i8 | 5.08 | 1.20 |
|  | i6 | 5.00 | 1.46 | i9 | 5.61 | 1.14 |
|  |  |  |  |  |  |  |
| Germany | i4 | 5.43 | 1.42 | i7 | 5.98 | 0.96 |
|  | i5 | 6.04 | 0.91 | i8 | 5.43 | 1.26 |
|  | i6 | 5.11 | 1.46 | i9 | 5.86 | 1.09 |
|  |  |  |  |  |  |  |
| Italy | i4 | 5.31 | 1.32 | i7 | 5.33 | 1.05 |
|  | i5 | 4.29 | 1.52 | i8 | 4.70 | 1.19 |
|  | i6 | 4.81 | 1.40 | i9 | 5.48 | 1.08 |
|  |  |  |  |  |  |  |
| Japan | i4 | 5.68 | 1.33 | i7 | 5.89 | 1.14 |
|  | i5 | 5.75 | 1.23 | i8 | 5.71 | 1.30 |
|  | i6 | 5.80 | 1.21 | i9 | 6.28 | 0.87 |
|  |  |  |  |  |  |  |
| Russia | i4 | 3.68 | 1.38 | i7 | 3.64 | 1.07 |
|  | i5 | 3.09 | 1.39 | i8 | 3.23 | 0.97 |
|  | i6 | 2.89 | 1.21 | i9 | 3.69 | 1.13 |
|  |  |  |  |  |  |  |
| USA | i4 | 4.49 | 1.59 | i7 | 5.23 | 1.25 |
|  | i5 | 4.69 | 1.64 | i8 | 4.74 | 1.43 |
|  | i6 | 3.88 | 1.77 | i9 | 5.79 | 1.12 |
|  |  |  |  |  |  |  |

**Appendix D.** CCI (i10, i11 & i12) across countries and product categories.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| COUNTRY | PRODUCT CATEGORY | Item | x̄ | σ |
|  |  |  |  |  |
| Finland | Airtravel services | i10 | 4.85 | 1.05 |
|  |  | i11 | 3.48 | 1.14 |
|  |  | i12 | 2.88 | 1.42 |
|  |  |  |  |  |
|  | Spirits | i10 | 5.13 | 1.13 |
|  |  | i11 | 4.70 | 1.56 |
|  |  | i12 | 4.55 | 1.84 |
|  |  |  |  |  |
|  | Electronics | i10 | 5.18 | 1.08 |
|  |  | i11 | 4.27 | 1.46 |
|  |  | i12 | 3.91 | 1.68 |
|  |  |  |  |  |
|  | Fashion | i10 | 4.18 | 1.14 |
|  |  | i11 | 2.37 | 1.20 |
|  |  | i12 | 2.01 | 1.29 |
|  |  |  |  |  |
|  | Beer | i10 | 4.11 | 0.96 |
|  |  | i11 | 3.25 | 1.46 |
|   |   | i12 | 2.92 | 1.66 |
|  |  |  |  |  |
|  |  |  |  |  |
| France | Sparkling wine | i10 | 6.22 | 0.98 |
|  |  | i11 | 6.40 | 0.86 |
|  |  | i12 | 6.34 | 1.04 |
|  |  |  |  |  |
|  | Fashion | i10 | 6.13 | 1.04 |
|  |  | i11 | 6.39 | 0.96 |
|  |  | i12 | 6.31 | 1.15 |
|  |  |  |  |  |
|  | Cars | i10 | 4.36 | 1.27 |
|  |  | i11 | 3.26 | 1.32 |
|  |  | i12 | 3.27 | 1.50 |
|  |  |  |  |  |
|  | Food | i10 | 5.99 | 0.96 |
|  |  | i11 | 6.05 | 1.18 |
|   |   | i12 | 5.63 | 1.55 |
|  |  |  |  |  |
|  |  |  |  |  |
| Germany | Cars | i10 | 5.98 | 1.11 |
|  |  | i11 | 5.78 | 1.51 |
|  |  | i12 | 5.63 | 1.68 |
|  |  |  |  |  |
|  | Electronics | i10 | 5.32 | 1.14 |
|  |  | i11 | 4.41 | 1.60 |
|  |  | i12 | 4.04 | 1.83 |
|  |  |  |  |  |
|  | Sportswear | i10 | 4.92 | 1.15 |
|  |  | i11 | 3.54 | 1.40 |
|  |  | i12 | 2.99 | 1.55 |
|  |  |  |  |  |
|  | Beer | i10 | 5.63 | 1.17 |
|  |  | i11 | 5.82 | 1.34 |
|  |  | i12 | 5.74 | 1.53 |
|  |  |  |  |  |
|  | Airtravel services | i10 | 5.19 | 1.33 |
|  |  | i11 | 4.14 | 1.58 |
|   |   | i12 | 3.73 | 1.80 |
|  |  |  |  |  |
|  |  |  |  |  |
| Italy | Food | i10 | 6.27 | 0.84 |
|  |  | i11 | 6.39 | 0.95 |
|  |  | i12 | 6.29 | 1.13 |
|  |  |  |  |  |
|  | Fashion | i10 | 5.90 | 1.05 |
|  |  | i11 | 6.09 | 1.13 |
|  |  | i12 | 5.90 | 1.28 |
|  |  |  |  |  |
|  | Cars | i10 | 4.46 | 1.28 |
|  |  | i11 | 4.03 | 1.59 |
|  |  | i12 | 3.72 | 1.78 |
|  |  |  |  |  |
|  | Sportswear | i10 | 4.55 | 1.14 |
|  |  | i11 | 3.45 | 1.47 |
|   |   | i12 | 3.08 | 1.68 |
|  |  |  |  |  |
|  |  |  |  |  |
| Japan | Electronics | i10 | 6.21 | 0.98 |
|  |  | i11 | 6.42 | 0.85 |
|  |  | i12 | 6.39 | 0.94 |
|  |  |  |  |  |
|  | Cars | i10 | 5.64 | 1.25 |
|  |  | i11 | 5.40 | 1.43 |
|  |  | i12 | 5.32 | 1.50 |
|  |  |  |  |  |
|  | Sportswear | i10 | 4.28 | 1.00 |
|  |  | i11 | 2.79 | 1.34 |
|   |   | i12 | 2.30 | 1.31 |
|  |  |  |  |  |
|  |  |  |  |  |
| Russia | Spirits | i10 | 5.35 | 1.29 |
|  |  | i11 | 6.41 | 1.03 |
|  |  | i12 | 6.36 | 1.05 |
|  |  |  |  |  |
|  | Airtravel services | i10 | 3.22 | 1.20 |
|  |  | i11 | 2.21 | 1.19 |
|  |  | i12 | 2.09 | 1.24 |
|  |  |  |  |  |
|  | Cars | i10 | 2.99 | 1.24 |
|  |  | i11 | 2.15 | 1.10 |
|   |   | i12 | 1.86 | 1.16 |
|  |  |  |  |  |
|  |  |  |  |  |
| USA | Food | i10 | 3.43 | 1.71 |
|  |  | i11 | 3.71 | 1.99 |
|  |  | i12 | 4.41 | 2.06 |
|  |  |  |  |  |
|  | Fashion | i10 | 5.05 | 1.23 |
|  |  | i11 | 4.14 | 1.61 |
|  |  | i12 | 3.96 | 1.77 |
|  |  |  |  |  |
|  | Sportswear | i10 | 5.51 | 1.12 |
|  |  | i11 | 5.27 | 1.35 |
|  |  | i12 | 5.00 | 1.58 |
|  |  |  |  |  |
|  | Cars | i10 | 4.94 | 1.28 |
|  |  | i11 | 4.94 | 1.32 |
|  |  | i12 | 4.83 | 1.52 |
|  |  |  |  |  |
|  | Beer | i10 | 3.77 | 1.52 |
|  |  | i11 | 3.36 | 1.58 |
|   |   | i12 | 3.27 | 1.81 |
|  |  |  |  |  |

**TABLES**

**Table 1**. List of stimuli, 38 country-brand pairs, included in the main test-series.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Country** |   | Brand 1 | Brand 2 | Brand 3 | Brand 4 | Brand 5 | Brand 6 |
|  |  |  |  |  |  |  |  |
| **Finland** |  | Finlandia | Finnair | Lapin Kulta | Marimekko | Nokia | - |
| **France** |  | Chanel | Danone | Dior | Kenzo | Moët and Chandon | Peugeot |
| **Germany** |  | Adidas | Audi | Braun | Lufthansa | Löwenbräu | Volkswagen |
| **Japan** |  | Asics | Canon | Honda | Sony | Toyota | - |
| **Italy** |  | Barilla | Diesel | Fiat | Kappa | Nutella | Versace |
| **Russia** |  | Aeroflot | Lada | Smirnoff | Stolichnaya | - | - |
| **USA** |  | Budweiser | Chrysler | Ford | Kellogg’s | Levi’s | Nike |
|   |   |   |   |   |   |   |   |

|  |
| --- |
| **Table 2.** Outer model factor loadings and cross-loadings for latent constructs; brand equity (BE), basic country image (BCI), product-country image (PCI) and category country image (CCI). |
| Item | BE | BCI | PCI | CCI |
|  |  |  |  |  |
| i1 | **0.909** | 0.230 | 0.284 | 0.431 |
| i2 | **0.852** | 0.136 | 0.262 | 0.400 |
| i3 | **0.912** | 0.246 | 0.310 | 0.404 |
| i4 | 0.195 | **0.865** | 0.470 | 0.273 |
| i5 | 0.198 | **0.847** | 0.463 | 0.161 |
| i6 | 0.199 | **0.852** | 0.454 | 0.202 |
| i7 | 0.287 | 0.571 | **0.889** | 0.324 |
| i8 | 0.274 | 0.456 | **0.890** | 0.286 |
| i9 | 0.273 | 0.348 | **0.814** | 0.289 |
| i10 | 0.491 | 0.340 | 0.415 | **0.900** |
| i11 | 0.368 | 0.143 | 0.244 | **0.914** |
| i12 | 0.354 | 0.134 | 0.227 | **0.895** |
|  |  |  |  |  |

**Table 3**. Latent variable reliability: Average variance extracted (AVE), Composite Reliability (CR), Cronbachs α and correlations between latent constructs brand equity (BE), basic country image (BCI), product-country image (PCI) and category country image (CCI).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | AVE | CR | Cronbach’s α | BE | BCI | PCI | CCI |
|  |  |  |  |  |  |  |  |
| BE | 0.794 | 0.920 | 0.870 | 1 |  |  |  |
| BCI | 0.730 | 0.890 | 0.816 | 0.231 | 1 |  |  |
| PCI | 0.749 | 0.899 | 0.833 | 0.321 | 0.541 | 1 |  |
| CCI | 0.816 | 0.930 | 0.891 | 0.462 | 0.250 | 0.347 | 1 |
|  |  |  |  |  |  |  |  |

**Table 4**. Model Summary, degree of variation explained, path coefficients, effect size and predictive relevance exerted by all endogenous variables across all latent constructs; brand equity (BE), basic country image (BCI), product-country image (PCI) and category-country image (CCI).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | R2 Full Model | Path Coefficients | Effect Size (f2) | Predictive Relevance (q2) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | BE | BCI | PCI | CCI | BE | BCI | PCI | CCI | BE |
| BE | 0.244 | - |  |  |  | - |  |  |  | - |
| BCI | - | 0.046\*\* | - |  |  | 0.003 | - |  |  | 0.001 |
| PCI | 0.293 | 0.158\*\* | 0.541\*\* | - |  | 0.021 | 0.414 | - |  | 0.015 |
| CCI | 0.126 | 0.396\*\* | 0.088\*\* | 0.300\*\* | - | 0.180 | 0.008 | 0.070 | - | 0.134 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\*\*) Significant at the 0.01-level

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**Figure 1**. Theoretical model, three interrelated country-image constructs on three separate levels of place-to-product interrelation all simultaneously exerting predictive influence on the exogenous variable brand equity.



**Figure 2.** Partial least squares structural equation model, outlining the structural relationship between basic country image (BCI), product-country image (PCI), category-country image (CCI) and their exerted influence on brand equity (BE).