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The Interactive Influence of Country of Origin of Brand and Product Involvement on Purchase Intention

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ABSTRACT

The previous literature relating to country of origin (COO) has shown that perceptions of a country in which a product is made affects consumers’ quality perceptions and purchase intention of products from that country. Predominantly that literature has assumed that the country in which a product is made is also the country in which its brand originates from. Due to globalization of production and companies outsourcing their production to countries with lower costs of production, there is a decoupling of COO into country of origin of manufacture (COM) and country of origin of brand (COB). A product may be branded in country X, but manufactured in country Y or Z. Little research has been done on the effect of COB on consumers’ purchase intention. In this paper we reexamine the work by Lee, Yun and Lee (2005), and extend it by using a field experiment to investigate the impact of COB and personal involvement, and their interaction, on purchase intention. The findings indicate that the COB has a significant impact on purchase intention when consumers have a low level of personal involvement, but not when consumers have a high level of personal involvement. This small but significant finding has considerable implications for global marketers.
INTRODUCTION

A product’s country of origin (COO) is often used as an extrinsic cue to provide consumers with a basis for purchase decisions (Bilkey and Nes, 1982; Cordell, 1992; Erickson et al; 1984; Han, 1989; Hong & Wyer, 1989,1990; Thorelli et al, 1989). It is a powerful image variable, which has been used to influence competitive positioning and success in the global market place. The COO construct is grounded on the assumption that the country where a product is manufactured is the same as the country where the product is branded.

In the past decade, with advanced technology development and increasing communication, companies have pursued global market expansion more than ever before. Various international brands have been created, and the aforementioned assumption is being challenged. In order to take advantage of lower wage rates and operation costs, companies are moving their manufacturing or assembling locations to developing countries. There is a rise in the outsourcing of various components (or parts), designs and engineering tasks by collaborating with foreign partner firms or establishing design centres overseas (Chao, 1998). For example, Pontiac LeMans made by Daewoo in South Korea, designed by Opel which is owned by General Motors (GM) in Germany and sold in the U.S. as a GM car (Chao, 1993). Moreover, the production of Boeing’s 787 is a result of outsourcing of more than half the structure of the plane, the pieces of which are manufactured in six different countries (Tatge, 2006). Thus, the traditional concept of country of origin (COO), which assumed that a product and its brand are exclusively tied to one country, may not hold in all cases. A product may be branded in country X, but manufactured in country Y or Z. Some companies have recognized the power of brand origin, and marketed their products on this basis. The success of Häagen Dazs is a typical example (Leon and Leslie, 2000).

Since the pioneering finding of Schooler (1965) that the COO of a product can have an effect
on a consumer’s opinion of the product, extensive research on the influence of COO on product evaluation of consumers has been reported in the literature (Johansson, Douglas and Nonaka, 1985). However, research findings on how COO affects product evaluation are largely inconclusive (Bilkey and Nes, 1982; Ozsomer and Cavusgil, 1991). Several attempts have been made in the literature to explain this puzzle. One of the most plausible explanations is that multi-country affiliation, and the separation of country of manufacture (COM) (Samiee, 1994) and country of branding (COB), undermines the relevance of COO (Johansson, 1989). Phau and Prendergast (2000) suggest that due to globalization COB is more accurate and appropriate than COO and there is a need for re-examining the COO effect based on this recognition. Another possible explanation for the inconclusive findings on how COO affects product evaluation is that there may be individual differences in terms of involvement with the product. As a result, researchers such as Gurhan-Canli and Mahewaran (2000) have called for more research on the impact of involvement on COO perceptions.

Our study extends the work of Lee, Yun and Lee (2005) by studying how COB, level of personal involvement, and their interaction impact purchase intention. We start this article by examining, from a theoretical perspective, the concepts of COO, COB and involvement. Hypotheses are then developed. In the second section of the article, the methodology is described in detail. We then present the results of field experiment we ran with 196 subjects in Hong Kong and discuss these results in the final section of the article. Finally, limitations and recommendations of the study are discussed.

CONCEPTUALIZATION AND HYPOTHESES

Country of Origin

Country of origin is closely linked to country image. The earliest definition of country image comes from the pioneering work of Nagashima (1970), who defined it as follows:
The picture, the reputation, the stereotype that businessmen and consumers attach to products of a specific country. This image is created by such variables as representative products, national characteristics, economic and political background, history, and traditions.

Roth and Romeo (1992) offer a similar definition:

The overall perception consumers form of the products from a particular country, based on their prior perceptions of the country’s production and marketing strengths and weaknesses.

Since the pioneering finding of Schooler (1965), COO has been studied extensively. The impact of COO includes product in general, classes of products, specific types of products, specific brands, among developed countries, between developed and less developed countries, or among less developed countries (Bilkey and Nes, 1982). In recent years, country has been viewed as a multi-dimensional construct involving a hybrid of factors that makes the distinction between the country of manufacture or assembly and the country of the company’s home. Research has gone beyond “Made in” or “Assembled in” to also include the concepts of “Designed in”, “Engineered In” and “Parts supplied by” (Ahmed and Astous 1996; Astous & Ahmed 1992; Chao 1993; Ettenson 1993; Johansson and Obermiller 1989; Han & Terpstra 1988; Ozsomer and Cavusgil 1991). There is no clear distinction between domestic and imported products and hybrids blur a product’s place of manufacture (Ettenson & Gaeth 1991). Johansson (1989) argues that hybridization of products under globalization has reduced the relevance of COO in the product evaluation process. This may explain why much of the earlier research findings on how COO affects product evaluation are largely inconclusive (Bilkey and Nes, 1982; Ozsomer and Cavusgil, 1991), since they fail to recognize the distinction between COB and COM. With more outsourcing and intensification of globalization, interest in COO has shifted to its components. Iyer and Kalita (1997)
pointed out that COM and COB as the components of COO are both important. Phau and Prendergast (2000) concur with Iyer and Kalita (1997), and argue that the traditional conceptualization of COO under the trend of globalization is inappropriate, and COB is more accurate and relevant in the issue and thus, there is a need for examining the previous investigation.

Apart from earlier research not separating COO into COB and COM, there may be another reason for the earlier inconclusive research findings in the COO area. Lee, Yun and Lee (2005) argue that differences in individual factors such as involvement may in part explain the inconsistent findings in prior studies. While Lee, Yun and Lee’s (2005) study examining the role of involvement on COM perceptions is noteworthy, they did not consider COB issues.

Our central thesis is that COB will be more important for low involvement consumers than for high involvement consumers. We study this in the context of identical products (in this case, a notebook computer) branded in two different countries: Japan and (South) Korea. Similar to the logic of Lee, Yun and Lee (2005), these two countries are chosen because of their distinct perceptions in terms of country image (Martin and Eroglu, 1993) and producers of electronic equipment (Gurhan-Carli and Maheswaran, 2000). Consumers will have prior perceptions of the country’s production and marketing strengths and weaknesses (Roth and Romeo, 1992). The Theory of Reasoned Action (TRA) predicts that behavioral intention is in part a function of his/her perceptions of and attitude toward the behavior (Ajzen and Fishbein, 1980). Since perceptions of a notebook computer with a Japanese brand are believed to be more positive than perceptions of a notebook computer with a Korean brand, subjects’ purchase intention for the notebook computer with a Japanese brand should be higher than that for the notebook computer with a Korean brand. Using this logic and recognizing the previously held perceptions of products made in Japan and Korea, we expect that the impact of Japan as a COB cue will be greater than that of Korea as a COB cue. Therefore, it is
hypothesized that:

H1: The COB cue of Japan will have a more positive impact on purchase intention than the COB cue of Korea.

Involvement and elaboration likelihood

Houston and Rothschild (1977, 1978) employed the involvement construct in their research into customers’ cognitive responses to persuasive messages. They identified three forms of involvement: situational, enduring and response. Enduring involvement is relatively more stable than situational involvement.

In conceptualizing involvement, Zaichkowsky (1986) and Bloch and Richins (1983) viewed involvement as having three major antecedent factors: characteristics of the person, characteristics of the stimulus, and characteristics of the situation. Across these three antecedents, the reference was always personal relevance, and Zaichkowsky as a result developed a 20 item personal involvement inventory (PII) (Zaichkowsky, 1985) which was latter shortened to 10 items (Zaichkowsky 1994). This revised scale captured both cognitive and emotional types of involvement.

Logically, subjects' purchase intention for a product when their levels of personal involvement are low should be lower than purchase intentions for a product when their levels of personal involvement are high, and vice versa. In other words, higher level of personal involvement may imply higher degree of purchase intention. Of greater interest theoretically is not so much the relationship between personal involvement and purchase intention, but rather, how COB interacts with personal involvement to influence purchase intention. Since the level of personal involvement indicates consumer’s thoughtfulness and motivation when buying a product, subjects with high levels of personal involvement on a particular product
should be more risk-averse in making purchase decisions since they will rely more on factual and important information. On the other hand, subjects with low level of personal involvement on a particular product should be less risk-averse in making purchase decisions and more susceptible to secondary cues such as COB cues. This logic is supported by Petty & Cacioppo’s (1981) Elaboration Likelihood Model (ELM). Consumers are exposed to many persuasive messages every day, and it would be impossible for them to thoughtfully process all these messages. According to the ELM, when it comes to persuasion and persuasive messages there are two pathways in which consumers can process information: they diligently consider information in a message (referred to as message elaboration via the central/systematic route, which requires a great deal of cognitive effort), or, they attend to positive or negative cues rather than argument strength (the peripheral/heuristic route) to guide their response to the message. The ELM also states that the degree of personal involvement acts as a moderator between the message and the response to the message/persuasiveness by determining the pathway to be used in processing. When a person is highly involved with the product, a message will be processed via the central pathway. They will utilize both product attributes and COM cues to arrive at a purchase decision. In contrast, if the recipient has low involvement with the product, he/she will be less motivated to elaborate the message, and product attributes will be less likely to have a significant impact on persuasion. Instead, the recipient will more likely base their purchase intention on peripheral cues such as the country of branding.

Gurhan-Canli and Maheswarana (2000) found that situational involvement moderated product evaluation while COO was treated as a heuristic cue. In Lee, Yun, Lee’s (2005) study, COO was only significant in cases of low level of situational involvement. We argue that more enduring and stable forms of involvement, i.e. personal involvement, will elicit a similar response as that found by Lee, Yun and Lee (2005), but in the context of COB rather
than COO.

H2: There is an interaction between personal involvement and COB when consumers have low personal involvement.

**METHODS**

To test the hypotheses, a 2 (country of brand - Japan/Korea) x 2 (personal involvement – high/low) factorial design was adopted. While the country of brand can be considered as experimental treatments, personal involvement involved a classification rather than a treatment, because subjects could not be assigned to high and low personal involvement at random. Instead, two groups of subjects (high personal involvement and low personal involvement) were formed after they had been exposed to the treatment.

Table 1 illustrates the four experimental conditions:

<table>
<thead>
<tr>
<th>Level of Personal Involvement</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country of Origin of Brand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>( ^{2n} )</td>
<td></td>
</tr>
</tbody>
</table>

We modified the advertising stimulus used by Lee, Yun and Lee (2005). First, we modified the notebook computer attributes in the ad based on local computer magazines. Second, in
order to manipulate COB, product brands in Japanese and Korean are used instead of “Made in Japan” and “Made in Korea (South)” labels. The Japanese brand name ("コンピュータ") and the Korean brand name ("컴퓨터") used both mean “computer”. To control for the influence of country of manufacture (COM), the notebook computers in our ads were both labeled as “Made in Taiwan”. The COB cue was embedded was along with sixteen other product attributes such as operating system, audio output etc (see Appendix 1).

The questionnaire had four sections. The first section was the screening questions asking about the age group and education level of respondents. Respondents who are out of our target groups (that is, respondents who are not aged 15 to 34 and not university undergraduates or graduates) were screened out. The second part of the questionnaire presented the stimulus. We asked the purchase intention of the respondents after reading the stimulus ad with COB cue of a Japanese brand or Korean brand notebook computer with other product attributes attached in the questionnaire. The third part measured the level of personal involvement by a 7-point semantic differential scale. The last part of the questionnaire collected the demographic data of respondents.

The questionnaire was drawn up in English and translated into Chinese through a translation and back-translation procedure (Brislin, Lonner, & Thorndike, 1973; Tamanin, Ancona, Botega, & Rodrigues-Netto, 2002). The questionnaires were pretested on groups of undergraduates and graduates consisted of 15 people.

4.3 Independent Variables

The COB cue was used and operationalized as “Japanese brand” or “Korean brand”. These two COB cues are chosen because of their perceived relative position as producers of electronic products (Gurhan-Canli and Maheswaran, 2000) and because of the significant
difference as tested by Martin and Eroglu (1993). In order to overcome the limitation of a single-cue approach (Bilkey and Nes, 1982) our study followed the approach of Lee, Yun and Lee (2005) in that the COB cue was embedded in an ad along with sixteen other product attributes such as operating system, processor, memory, display, warranty, etc.

Personal involvement was used as a classification variable rather than a manipulated variable, because subjects could not be assigned to high and low team involvement at random. Personal involvement with a notebook computer was measured using Zaichkowsky’s (1994) ten-item scale, which is scored on a 7-point semantic differential scale (see Appendix 1). Two groups of subjects (high team identifiers and low team identifiers) were formed after being exposed to the treatment. As suggested by Malhotra (2004), for interval data, the median is a better measure of central tendency to divide the two groups of subjects. Therefore the median was used to split the respondents into low and high involvement groups.

4.4 Dependent Variable

One dependent variable, namely, purchase intention is used in this study. It was measured through a 3-item, 7-point semantic differential scale; “probable vs. improbable,” “likely vs. unlikely,” and “possible vs. impossible” (Lee, Yun and Lee, 2005).

4.6 Product Selection

The research followed Lee, Yun and Lee (2005) in that notebook computer is selected because it is a de facto necessity for Hong Kong young and educated adults. Hong Kong has become an intellectual-oriented society and hence, young and educated adults in Hong Kong are familiar with the product. Therefore, the effect of COB will not be predominant in the product evaluation process (Johansson, Douglas and Nonaka, 1985).
Sampling

One hundred and ninety-eight questionnaires were distributed in Hong Kong. Questionnaires were distributed in IFC mall in Central, Festival Walk in Kowloon Tong and New Town Plaza in Shatin. It is because IFC mall is a favorite commercial centre in Hong Kong Island, Festival Walk is adjacent to two universities (HKBU and City University) and New Town Plaza is one of the highest traffic-flow plazas in New Territories.

Two sets of questionnaires (one in Japanese brand and one in Korean brand\(^1\)) were distributed to respondents randomly. Overall there were four experimental conditions (i.e. high and low levels of personal involvement with two countries of brand), around 49 respondents were allocated to each experimental cell to obtain enough useable data, resulting in 196 respondents. This can satisfy the sample size requirement mentioned by Hair et al. (1998) regarding the use of ANOVA (i.e. minimum of 20 observations per cell). We follow the approach of Borrell et al. (2001), young adult is defined as persons who are between the age of 15 and 34. Therefore, university undergraduates and graduates who are between the age of 15 and 34 were the subjects of this study. This group is amongst the highest users of computers (See Bromley et al., 1998). They are familiar with computers and therefore this relatively homogenous sample controls for any confounding effect of product familiarity/unfamiliarity.

5. RESULTS

Among the 196 samples, 168 are valid samples and 28 are invalid with 10 samples are beyond our target age group and 18 samples are beyond our target education level. \(^1\) Hereafter, the questionnaire with Japanese brand is named “Japanese version” and the questionnaire with Korean brand is named “Korean version”.

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respondents answered the Japanese version and the other 83 respondents answered the Korean version. The level of personal involvement ranged from 10 to 70 points. The samples were then assorted according to their level of personal involvement\(^2\), two groups of level of personal involvement, that is, high and low, were assorted accordingly.

In terms of descriptive statistics, the mean score for the purchase intention scale was 3.0 (Cronbach’s alpha = .96), and the mean score for the personal involvement scale was (Cronbach’s alpha = .94). The alphas exceed the basic requirement of 0.70 (Bagozzi 1994), which indicates that the scale items are internally consistent. Therefore, the scales can be considered reliable and could be used for the analyses.

5.3 Hypothesis Testing

Table 2 ANOVA results

<table>
<thead>
<tr>
<th>Dependent Variable: Purchase Intention</th>
<th>$F$ (1,164)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COB</td>
<td>3.17</td>
<td>0.08</td>
</tr>
<tr>
<td>Personal involvement</td>
<td>82.51***</td>
<td>0.00</td>
</tr>
<tr>
<td>Two-way Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COB x Personal involvement</td>
<td>5.68*</td>
<td>0.02</td>
</tr>
</tbody>
</table>

\(^2\) For this arrangement, we follow the suggestion of Dr. Gerard Prendergast.
As shown in Table 2, the main effect for COB was not significant. Hypothesis 1 (“The impact of COB cue of Japan is greater than that of Korea on purchase intention”) is not supported. On the other hand personal involvement, predictably, had a significant main effect.

There was also statistically significant interaction between COB and involvement \([F (1,164) = 5.68, p \leq 0.05]\). Simple effect analysis (Keppel and Zedeck, 1989) was conducted to compare the purchase intention for the two COB cues under high and low levels of personal involvement. The analysis showed that there was no significant difference in purchase intention for the COB cue of Japan under high level of personal involvement (M=3.95, SD=1.36), and the COB cue of Korea under high level of personal involvement (M=3.91, SD =1.76). There was, however, a significant difference in purchase intention for the COB cue of Japan under low level of personal involvement (M=2.52, SD=.89), and the COB cue of Korea under low level of personal involvement (M=1.74, SD =.74) \([t=-4.35, p=0.000]\). Hypothesis 2 (“There is an interaction between personal involvement and COB in a low involvement condition”) is supported.

**DISCUSSION**

Extending the work of Lee, Yun and Lee (2005), this study focused on the impact of the COB cue. We found that the COB cue of Japan does not have a greater impact on purchaser intention than the COB cue of Korea. Second, and of greater theoretical interest, we found that the impact of COB cues on purchase intention is moderated by personal involvement,
with low involvement respondents being more sensitive to COB than high involvement respondents. More specifically, the influence of the COB cue of Japan on purchase intention is greater than that of Korea when the consumers have low involvement. This finding suggests that the impact of COB cue on purchase intention is contingent upon the level of personal involvement. This implies that the COB cue can offer marketers a threat or an opportunity depending on the involvement levels of their target market, and the origin of their brand. For marketers whose product is branded in a country with favorable perceptions, emphasizing the COB would be a useful strategy when communicating with low involvement consumers. On the other hand, marketers whose product is branded in a country with less favorable perceptions ought to emphasize other peripheral cues when communicating with low involvement consumers (or, alternatively, try to increase the involvement of their market).

**LIMITATIONS**

Although this study provides insights with regard to the interactive effect between COB and level of personal involvement on purchase intention, caution should be exercised in interpreting various terms and results due to various limitations. First, this study involved a single product type and a sample limited to 15-34 year olds. While this controls for extraneous variables and improves internal validity, it limits the external validity. The second limitation relates to the method of using median split to divide subjects into low and high involvement groups. Using such an approach, it could be argued that subjects classified as low level of personal involvement in one study may be classified as high level of personal involvement in another study or vice versa. Third, only one dependent variable, purchase intention, was studied. It is possible that COB influences other outcome variables which may be more cognitive or affective in nature. Finally, we study COB as a separate construct from COM. Is there an interaction between COB, COM and involvement? Do consumers
follow compensatory decision rules, in that negative perceptions of COM can be compensated for by positive perceptions of COB? Han and Terpstra (1988) concluded that the sourcing country has greater effects on consumer evaluations of product quality than does the brand name. However, Eroglu and Machleit (1989) concluded that consumers accord a similar influence to brand and country of manufacture respectively. Future research may investigate this issue, and whether personal involvement might explain the inconsistency in the findings.

CONCLUSION

Globalization increases the complexity of global business and the interdependency between countries. It is obviously that a product’s COB is different from its COM. By examining the role of COB, this study has successfully extended the work of Lee, Yun and Lee (2005). Further studies are needed to provide meaningful implications.
8. REFERENCES


Figure 1

Two-way Interactions among COB, Personal Involvement, and Purchase Intention

*Purchase intention: 1-7 ratings; a higher score implies a greater intention to buy the product.*
Appendix 1: Measurement scales

Purchase intention

Purchase intention was measured on a 7-point semantic differentials scale using the following bipolar adjectives:

“probable vs. improbable”

“likely vs. unlikely”

“possible vs. impossible”

Personal involvement

Personal involvement was measured on a 7-point semantic differentials scale using the following bipolar adjectives:

“important” vs. “unimportant”

“boring” vs. “interesting”

“relevant” vs. “irrelevant”

“exciting” vs. “unexciting”

“means nothing” vs. “means a lot to me”

“appealing” vs. “unappealing”

“fascinating” vs. “mundane”

“worthless” vs. “valuable”

“involving” vs. “uninvolving”

“not needed” vs. “needed”
Appendix 2: Experimental Stimulus Ads (Notebook Advertisement)

Brand: コンピュータ

Operating System-Microsoft Window XP home Edition preinstalled
Processor-Intel® Pentium® M processor 2.26 GHz with Intel® SpeedStep™
Memory/RAM installed-1GB 133MHz SyncDRAM for multitasking power
Memory/Cache Installed-512 KB

Display-15" SXGA+TFT display
Storage CD/DVD-1 x CD-RW/DVD-ROM/DVD Recordable
Storage Hard Drive-1 x 100 GB Ultra DMA hard drive
Battery (Max)-1 (2) x Lithium ion proprietary
Input Device-Keyboard, touchpad
Telecom-Fax/modem-integrated 56 Kbps
Networking-Network adapter-Ethernet, Fast Ethernet integrated, Wireless LAN

Audio Output-Sound card-64-Bid stereo
Video Output-Graphics card-Intel 815EM
Weight-3.5 lbs
Warranty-1 year warranty
Made in Taiwan
APPENDIX D. Experimental Stimulus Ads (Notebook Advertisement)

Brand: 컴퓨터
Operating System-Microsoft Window XP home Edition preinstalled
Processor-Intel® Pentium® M processor 2.26 GHz with Intel® SpeedStep™
Memory/RAM installed-1GB 133MHz SyncDRAM for multitasking power
Memory/Cache Installed-512 KB

Display-15" SXGA+TFT display
Storage CD/DVD-1 x CD-RW/DVD-ROM/DVD Recordable
Storage Hard Drive-1 x 100 GB Ultra DMA hard drive
Battery (Max)-1 (2) x Lithium ion proprietary
Input Device-Keyboard, touchpad
Telecom-Fax/modem-integrated 56 Kbps
Networking-Network adapter-Ethernet, Fast Ethernet integrated, Wireless LAN

Audio Output-Sound card-64-Bid stereo
Video Output-Graphics card-Intel 815EM
Weight-3.5 lbs
Warranty-1 year warranty
Made in Taiwan