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The Effect of Country of Origin on Purchase Intention: The Role of Product Knowledge

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Abstract: The purpose of this study is to investigate the effects of country-of-origin (COO) cues on purchase intention by considering the role of product knowledge. On the basis of the results of the present study, marketers are able to do a more effective job in formulating the contents of their messages in marketing communications. A total of 380 questionnaires were distributed to university students. Country-of-origin, the independent variable, was measured using Maheswaran (1994) scale; purchase intention, the dependent variable; and product knowledge was the moderator variable. Structural equation modeling was used for data analysis and to test the hypotheses. The results show that the effect of production origin country on willingness to purchase in individuals with low product knowledge is greater than in those with high product knowledge; also the effect of production origin country on willingness to purchase in individuals whit low objective knowledge is greater than that in those with high objective knowledge. In final, Structural equation modeling shows that the effect of production origin country on willingness to purchase in individuals with low and high subjective knowledge of product is rejected because of quantity of T-value which are 1.4 and 1.9 respectively.

Key words: Country of origin, product knowledge, purchase intention

INTRODUCTION

The country of origin (COO) of a product is an important marketing element known to influence consumer perceptions as well as behavior. The country of origin of a product is an extrinsic cue which similar to brand name, is known to influence consumers' perceptions and to lead consumers to cognitive elaboration (Pappu *et al.*, 2006). Country of origin is known to guide to associations in the minds of consumers (Aaker, 1991; Keller, 1993). In the process of buying, consumers are not only concern about the quality and price of a product but also other factors such as the brand's country-of-origin.

Many consumers utilize country-of-origin stereotypes to appraise products for example, "Japanese electronics are reliable", "German cars are excellent", "Italian pizza are superb". Many consumers believe that a "Made in . . " label means a product is "superior" or "inferior" depending on their perception of the country (Yasin *et al.*, 2007).

Among researches, the role of product knowledge has been studied extensively. Consumers with different levels of product knowledge inclined to make use of COO cues in their product evaluation in different ways (Cordell, 1997).

Thus, the relationship between COO cues and product knowledge, and how this impacts consumer decision making needs to be comprehended. Regarding that businesses are going global more and more these days and the requirement for communicate with consumers with diverse cultural backgrounds is enhancing, it is essential for researchers to comprehend how consumers incorporate COO information with their product knowledge in decision making (Lee and Lee, 2009).

The goal of this research is to examine how product knowledge impacts consumers' purchase intention when COO cues are entailed. This paper looks to add to studies of COO through a study role of product knowledge type in relationship between COO and purchase intention among Iranian consumers.

Previous research into COO has emphasized the relationship between Coo and other construct such as brand equity, product evaluation, purchase decision and etc. For example Lin and Chen (2006) indicated the country of origin image, product knowledge and product involvement all have a significantly positive effect on consumer purchase decision; the country of origin image has a significantly positive effect on consumer purchase decisions under different product involvement; and product knowledge has significantly positive effect on consumer purchase decisions under different product

involvement. In other research Chen (2009) found that COO has a significantly positive effect on the attitude toward American-made products. Moreover, Indonesian respondents who demonstrate higher patriotism show negative sentiments toward American products. The effects of COO on purchase intentions are productspecific and consumer consuming-specific. Stronger product attitude exists for Taiwan's sample than for Indonesia's, principally due to higher cultural identification with America. Chao and Rajendran (1993) point out that, when customers are making decisions, they search for more information before making their purchase. Regarding to products, with the exception of considering national image of the COO, consumer product knowledge is a significant element when purchasing. Lee and Lee (2009) also, found that consumers with high product knowledge were less likely to be influenced by COO cues in their product evaluation than those with low product knowledge. Also, consumers with high objective knowledge would be less likely to rely on COO cues in their product evaluation. However, there was no significant relationship between COO cues and consumers' subjective knowledge.

LITERATURE REVIEW

Country of origin: Saeed (1994) indicate that country-oforigin means the country that a manufacturer's product or brand is associated with; traditionally this country is called the home country. For some brands, country-oforigin belongs to a given and definite country, such as IBM belongs to the USA and SONY is a Japanese brand. However, Ahmed et al. (2004) defines country-of-origin as the country that conducts manufacturing or assembling, which follows the definition stated by Saeed (1994). Saeed (1994) indicates that country of manufacture (COM) represents the last location/country of manufacturing or assembling one product. Therefore, Saeed (1994) defines country-of-origin as the COM. In addition, Roger et al. (1994) report there is no distinct difference between location of manufacture and location of assembly, and this causes no significant difference to customers concerning product appraisal. Roth and Romeo (1992) allege that country-of-origin effect means customers' stereotypes of one specific country. According to the definition mentioned by Johansson and Thorelli (1985), a country's stereotype means people in a country (or specific people) have stereotypes and preferences for products of another country. However, Saeed (1994) considers that country-of-origin effect means any influences or preferences caused by country-of-origin and/or COM.

Product knowledge: Product knowledge is an important construct in understanding consumer behaviors such as information search and information processing (Park

et al., 1994). Knowledge is the body of facts and principles (i.e., information) collected by mankind (i.e., stored in memory) about a domain (Page and Uncles, 2004). The degree of knowledge that consumers have about a product will influence the cues used to make product quality assessments (Rao and Monroe, 1988). Researchers agree that there are different types of product knowledge (Raju et al., 1995).

The measures of consumer product class knowledge used in previous studies fall into three categories. The first measures an individual's perception of how much s/he knows. The second category measures the amount, type, or organization of what an individual actually has stored in memory. The third category measures the amount of purchasing or usage experience with the product (Brucks, 1985). These three types of knowledge (i.e. subjective knowledge, objective knowledge, and usage experience) are generally considered distinct, even though they are often positively correlated (Raju *et al.*, 1995).

Differences between measures of subjective knowledge (i.e., what individuals perceive that they know) and measures of objective knowledge (i.e., what is actually stored in memory) happen when people do not accurately perceive how much or how little they actually know, assuming that the measures are equally sensitive. Of course, measures of objective knowledge can never be entirely objective. That is, such measures depend on some form of communication from the individual about his/her knowledge. Nevertheless, measures of objective knowledge are conceptually and operationally distinct from measures of subjective knowledge (Brucks, 1985). Objective knowledge is accurate information about the product class stored in long-term memory, while selfassessed knowledge or subjective knowledge is people's perceptions of what or how much they know about a product class (Park et al., 1994; Veale, 2008). While objective product class knowledge is likely to influence information processing strategies, subjective product class knowledge is more likely to affect consumers' confidence in using information stored in memory (Schaefer, 1997). Researchers intrigued by usage experience view an individual's previous product usage/experience as one indicator of objective knowledge. Among these researchers are Marks and Olson (1981).

Purchase intention: Purchasing intention is the probability that customers in a certain purchasing situation choose a certain brand of a product category (Crosno *et al.*, 2009). The interest of marketing scholars on purchase intentions drives from its relation to purchase behaviour. Fishbein and Ajzen (1975) contend that "the best single predictor of an individual's behavior will be a measure of his intention to perform that behavior". Fishbein (1967) Behavioral Intentions model is based on

Dulany (1967) theory of propositional control, which states that ". . . an individual's intention to per-form a behavior is a function of:

- His attitude toward performing the behavior in a given situation
- The norms governing that behavior in that situation and his motivation to comply with these norms

Of special importance is that the concern is with the individual's attitude toward the act of performing a behavior and not his attitude toward the object. Second, the model requires that the attitude be measured toward a highly specific situation. Third, the attitude toward the act in question is a function of the individual's beliefs about the possible outcomes of performing the act and his evaluation of those beliefs (Bennett and Harrell, 1975). Moreover, marketing managers are interested in consumer purchase intentions so as to prognosticate sales of existing and/or new products and services. Purchase intentions data can help managers in their marketing decisions related to product demand (new and existing products), market segmentation and promotional strategies (Tsiotsou, 2006).

RESEARCH HYPOTHESIS

Previous studies in various fields have also demonstrated that consumers may not always be affected by COO cues in the same way (Chiou, 2003; Liu and Johnson, 2005; Maheswaran, 1994). They indicated that consumers use COO cues as a cognitive shortcut when other information is scarce. As an extrinsic product cue, COO is similar to brand, price, warranty, and other intangible traits. researchers concluded that consumer attitude would be more persistent and less affected by COO cues over time as long as they have high product knowledge and motivation to process product-related attribute information. Specifically, past studies demonstrated the fact that the salience of COO cues differs according to information-processing strategies used by consumers. Consumers who have low product knowledge are more likely to use COO cues as indicators of product quality. This is due to their inability to analyze intrinsic cues, such as physical product attributes (Maheswaran, 1994; Rao and Monroe, 1988, Lee and Lee, 2009).

COO cues will positively influence novices' expectations of purchase intention when COO cues are favorable. Conversely, COO cues will negatively affect novices' expectations of purchase intention when COO cues are unfavorable (Biswas and Sherrell, 1993; Chao and Werani, 2005; Chiou, 2003). Some studies have found that consumers do not perceive all products from a given country as being the same or similar; there may

exist a product-specific effect (Etzel and Walker, 1974; Han and Terpstra, 1988). Meanwhile, consumers with high product knowledge are able to perform productrelated tasks successfully and have extensive prior knowledge about product types, usage, and purchase information. Product knowledge will also help consumers attend to process information in a regulated and controlled manner when they are revealed to persuasive COO claims. About product knowledge type also, Obiective knowledge relies heavily on stored information in the memory (Park et al., 1994). Rudell (1979) found that higher levels of objective knowledge are related to greater use of newly acquired information. Thus, consumers with high objective knowledge tend to search and process attribute-related information actively. Brucks (1985) also provided evidence that objective knowledge is positively correlated to the number of product attributes examined. Meanwhile, subjective knowledge is positively related to dependence on preexisting knowledge that is primarily accumulated by product-related experiences (Park et al., 1994; Rudell, 1979). Also, considering that subjective knowledge is based on self-judgment, consumers who are confident about their subjective knowledge are less likely to search actively for new product-related information (Rudell, 1979). Thus:

- **H1:** Consumers with high product knowledge are less likely to be affected by COO cues in their purchase intention.
- **H2:** Consumers with high objective knowledge are less likely to be affected by COO cues in their purchase intention than those with low objective knowledge.
- **H3:** Consumers with high subjective knowledge are more likely to be affected by COO cues in their purchase intention than those with low subjective knowledge.

METHODOLOGY DATA COLLECTION AND ANALYSIS

Product and country selection: In relation to stimulus, mobile phones were chosen because of their wide use among Iranian students and their technology-orientation. Also a false name (Kash) was used as brand and in the beginning of the questionnaire a printed advertising about the characteristics and capabilities of the intended product was presented to the responder.

Iran and Finland as the manufacturers of mobile phones were chosen as country stimulus. The reason for choosing these two countries was that Finland provides Nokia brand, one of the mobile phone brands widely being sold in Iran, and Iran by manufacturing mobile phones and entering this industry is in the beginning of the path. On the other hand Finland is of a high image related to mobile phones and Iran has a low image in this respect.

Questionnaire design: Nagashima (1970) conceptually defined the COO as the picture, the reputation, and the stereotypes that businesses and consumers relate to products of a specific country. The COO cue used in this study was operationalized as "Manufactured in Finland" and "Manufactured in Iran." Additionally, the perception of each country was measured with three items: "The country that made this mobile phone is likely to make high-quality mobile phones," "The country that made this mobile phone is likely to be technologically superior," and "The country that made this mobile phone has a good reputation of technological products." Items used in the study of Maheswaran (1994) were slightly modified for this research. The COO construct is measured using a 5point Likert scale (1 = Strongly Disagree and 5 = Strongly Agree). Also, these items were used separately for the manipulation check.

Another independent variable is product knowledge that consists of objective and subjective knowledge. According to Biswas and Sherrell (1993), product knowledge can be conceptually defined as information about functional attributes of products and about brand differences on attributes. As the subdimensions of product knowledge, objective knowledge can be defined as the amount of knowledge that consumers possessed in their memory, whereas subjective knowledge can be conceptualized as self-reported knowledge (Alba and Hutchinson, 1987). Specifically, respondents' existing product knowledge was measured. When measuring objective knowledge, 10 choices regarding specific attribute information about mobile phones were offered in a multiple-choice format. Respondents' correct answers were summed up to create an objective knowledge index. Simultaneously, five choices regarding subjective knowledge were offered to create a subjective knowledge index on a 5-point semantic differential scale. Subjective knowledge choices included: "I know pretty much about mobile phones," "I do not feel very knowledgeable about mobile phones," "Among my circle of friends, I am one of the experts on mobile phones," "Compared to most other people, I know less about mobile phones," and "When it comes to mobile phones, I really don't know a lot."

Purchase intention was used as dependent variable and was conceptualized as an individual's conscious plan to make an effort to purchase a brand. It was measured by three items, such as "I would never buy it/I would definitely buy it," "I definitely do not intend to buy/I definitely intend to buy," and "I have very low purchase interest/I have very high purchase interest" on a 5-point semantic differential scale (Spears and Singh, 2004).

Sampling target: In this study, information was collected in November 2011, from 380 college students in 5 management faculties of Islamic Azad University in Tehran area. According to Shouli (2007), in every society

college students and consumers belong to the middle and high class, and their education, revenue, social status and social interactions make them more involved. Therefore, college students who are in different age ranges with varying income levels were selected as the sample of this research.

Sampling method and sample size: Selective university is comprised of five colleges and eighty majors are taught in that. Totally, 26420 students study there. According to Krejcie and Morgan (1970) table, sample size was defined 379. Proportional Stratified sampling and systematic random sampling were applied. In the first place, based on Proportional Stratified sampling, sharing and distribution of questionnaires was done relative to the numbers of colleges. Afterwards, systematic random sampling was done in front of the college entrance gate to choose the respondents. With regard to the size of sample, 400 questionnaires were distributed, that 200 students was given a questionnaire about the Finland of mobile phones and other group of 200 was given a questionnaire about the Iran of mobile phones. In total 380 completed questionnaire were obtained, that 192 questionnaire for Finland of mobile phones and 188 questionnaire for Iran of mobile phones gathered.

Data analysis: Structural Equation Modeling (SEM) with Lisrel software was used for the data analysis. SEM is a comprehensive statistical approach for testing hypotheses about relations between observed and latent variables. It combines features of factor analysis and multiple regressions for studying both the measurement and the structural properties of theoretical models. SEM is formally defined by two sets of linear equations called the inner model and the outer model. The inner model specifies the relationships between unobserved or latent variables, and the outer model specifies the relationships between latent variables and their associated observed or manifest variables (Turkyilmaz and Ozkan, 2007). SEM methodology can account for independent variable errors and model multiple relationships simultaneously, which results in more powerful tests of mean differences (Martinez et al., 2008). The results obtained for model showed excellent fit (RMSEA = 0.043, GFI = 0.92, AGFI = 0.91, NFI = 0.90, CFI = 0.92).

RESULTS

Findings from structural equation modeling (SEM) in relation to the hypothesis show that the effect of production origin country on willingness to purchase in individuals with low product knowledge is more that those with high one. Standard coefficients for effect of production origin country on willingness to purchase was 52% (T-value = 4.9) and 35% (T-value = 5.01) individuals with low and high knowledge respectively; thus this hypothesis is supported.

Also findings show that the effect of production original country on willingness to purchase in Finland in individuals with low product knowledge is greater than those with high product knowledge. Findings of study suggest that the effect of production origin country in individuals with low objective knowledge of product with a coefficient of 43% (t-value = 3.7) is greater that those with high objective knowledge with standard coefficient of 29% (t-value = 4.4). These finding support the second hypothesis. Also this effect is greater for Finland.

Structural equation modeling shows that the effect of production origin country on willingness to purchase in individuals with low and high subjective knowledge of product is rejected because of quantity of t-value which are 1.4 and 1.9, respectively.

DISCUSSION AND CONCLUSION

Aim of the present study is to examine the effect of production origin country on willingness to purchase regarding the role of product knowledge (objective knowledge and subjective knowledge of product). On the basis of the results of the present study, marketers are able to do a more effective job in formulating the contents of their messages in marketing communications.

Findings of this study are consistent with those of other ones, e.g. Lee and Lee (2009). The present study showed that the effect of production origin country on willingness to purchase in individuals with low product knowledge is greater than in those with high product knowledge. This finding shows that marketers should determine the extent of using production origin variable in their marketing communications by identifying the product knowledge in their target market. If target market is of low product knowledge, the production origin country should be more emphasized. Of course it should be noted that the country name is influential in this regard. In present study if was shown that the effect of production origin country on willingness to purchase Finland products is greater than the effect of it on willingness to purchase Iranian products respecting the fact that Finland is a well-know producer of cell phones. Thus the more a country is powerful in producing the intended product, more if should be emphasized in marketing communications.

Findings also show that effect of production origin country on willingness to purchase in individuals whit low objective knowledge is greater than that in those with high objective knowledge. Based on this fact, marketers of products from a powerful country should employ this strength by increasing objective knowledge of product across the target market and include the brand of origin country in their marketing communications.

On the other hand this study had limitations too among them followings can be mentioned: only one product was considered in the present study and 2

countries with different images associated with production origin country in the field of the intended product were examined. Thus in future studies the products jointly produced by different companies can be considered. Also this study employed students as subjects and this may have implications for generalizing of the results. It is also recommended that in order to achieve valid results and for generalizing the result, the present study should be replicated with consumers from various countries so that it can obtain a wide geographical coverage.

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