

The Impact of Brand Equity on Purchase Intention and Brand Preference-the Moderating Effects of Country of Origin Image

Hadi Moradi, Azim Zarei

Department of Business Administration, Faculty of Management and Economic, Semnan University, IRAN

Abstract: The main purpose of this study is to investigate the relationships among brand equity, purchase intention and brand preference from Iranian young consumers view point. Moreover secondary aim of this research is examining the moderate role of country of origin image. To accomplish these, a conceptual framework was designed and relationships among its constructs (Brand equity, purchase intention, brand preference and country of origin image) were hypothesized. Data were collected from Iranian students' who were the owners of selected brand of laptop and mobile phone. Hypotheses were tested using structural equation modeling (SEM) in LISREL and subgroup correlation analysis in SPSS. Results indicated that brand equity positively influences consumer's brand preference and purchase intention. But results unsupported moderating role of country of origin image.

Key words: Brand equity, country of origin image, purchase intention, brand preference, Iran

INTRODUCTION

Many companies are setting the goal of attracting their consumers' attention (Kim, *et al.* 2001). One way to achieve this goal is distinction. Companies can distinct their product by focusing on any physical properties (e.g., taste, design) or unphysical (e.g., price, brand name and country of origin) (Zeugner -Roth, *et al.*, 2008). Branding is powerful means of distinction. (Pappu, *et al.* 2005). Brand as a Basic of today's competitive game, must be carefully define, create and manage because branding enable a producer to obtain the benefits of offering products with unique or superior quality and provides an opportunity to transfer this identifiable relationships to other products or services (Motameni and Shahrokhi, 1998).

Strong brand leads competitive advantages (Lee and Back, 2010), increase organization cash flow and accelerate liquidity (Miller and Muir, 2004), provide premium price, profitability and more loyalty for customers (Madden, *et al.* 2005), and also support brand extension opportunity (Yasin, *et al.* 2007).

Building brand equity is considered an important part of brand building (Pappu, *et al.* 2005). Brand equity refers to the incremental utility or value which brand adds to the product (Chen and Chang, 2008). In the few last decades, brand equity concept has grown rapidly. One reason for its popularity is strategic role of that and importance in obtaining competitive advantage in strategic management decisions. Brand equity is appropriate metric for evaluating the long-run impact of marketing decision (Atilgan, *et al.* 2005). Appropriate management of brand equity leads more loyalty, low risk of marketing activity and marketing crisis, flexible response to price fluctuations, more business support and cooperation, effectiveness of marketing communications, licensing opportunities, additional opportunities for brand extension, more attraction for investors, more supports from investors (Aaker, 1991; Keller, 2003; Van Auken, 2005), greater profit margins (Kim and Kim, 2005), ability to attract good employees (DelVecchio, *et al.* 2007), protection of potential competitors entrance during outsourcing (Lim and Tan, 2009).

Keller (2003) states that beside the company that act as a producer of a special product, the country or geographical location of producer also relate to the brand and generate secondary association (Baldauf, *et al.* 2009). Country of origin image (COO) is an extrinsic clue for branded product (Nayir and Durmusoglu, 2008; Baldauf, *et al.* 2009). Knowledge and understanding of consumers' perception and how they interact with country of origin image in target markets is also crucial.. Thakor and Katsanis (1997) states that country image cues directly and indirectly (through brand) effect on perceived quality. Long-term history (more than forty

years old) indicates that perception country of origin is effective on purchase intention and evaluation of products by consumers (Zugner-Roth and Diamantopoulos, 2009).

This research looks at relationships among personal goods especially laptop and mobile phone brand equity, brand preference and purchase intention. Secondary purpose of research is exploring potential effect of COO on these relationships.

Bearing these considerations in mind, in the next sections basic concepts of research will introduce and by considering that the core structures will develop. Next we outline the study's methodology, focusing on data collection and measurement issues. Lastly we present data analysis and results and show the main conclusions of the study.

2. Conceptual Framework and Background:

The framework of this research has been shown in figure 1. This framework is designed upon the conceptual framework for brand equity presented by Chen and Chang (2008) by incorporating brand preference and purchase intention as consequences of brand equity. In conceptual model, brand equity is treated as the independent variable, brand preference and purchase intention treated as the dependent variables, also COO considered as moderated variable.

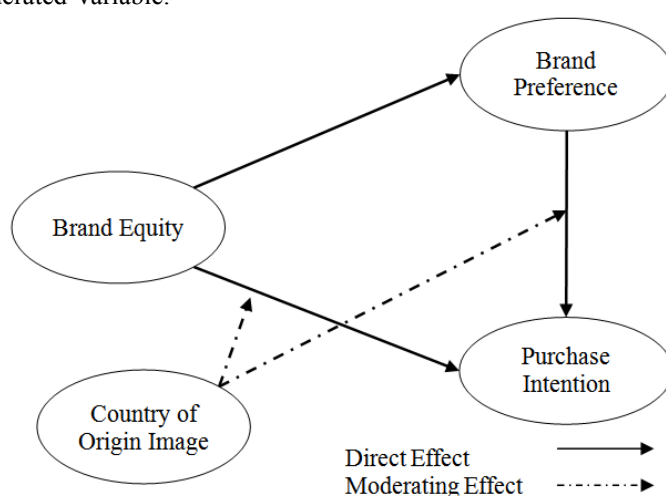


Fig. 1: Conceptual framework

Although branding and brand management was available for many decades, but the brand equity is a key and fundamental concept for most organizations which are appeared in recent 20 years (Leone *et al*, 2006). Emerge of brand equity increases the importance of marketing strategies and provided focus point for researchers and managers (Chen, 2009). Brand equity is a key and central concept in brand management and has been considered in different perspectives (Boo. *et al*, 2009). The idea of brand equity is related with the company's success, because when it is created, it has more profits and less expenses for company (Myers, 2003; Na, *et al*, 1999; Agarwal and Rao, 1997; Keller, 2003). The concept of brand equity cover a wide range, because consumers' experiences, feelings and what they learn about the brand in long term, is relevant with concept of brand equity. This term is the word that we know about consumer based brand equity and that is the added value that connects to the product in consumers mind, words and actions. (Leone *et al*, 2006).

Three approaches have proposed to evaluate the brand equity. The first one is financial and monetary value of brand in market. Second one is a multidimensional concept that includes added value of product or service which creates by awareness of consumers and perceptions of them from brand that conceptualized as consumer based brand equity. (Keller, 1993; Yang and Jun, 2002; Washburn and Plank, 2002; Aaker, 1991). The third approach is a combination of financial and consumer approaches. Brand equity in the consumer-based approach concentrate on the knowledge of consumers about the brand. In this research we focus on the customer-based perspective. The operationalizations of consumer-based brand equity can be divided into consumer perception (e.g. brand awareness, brand association, perceived quality) and customer behavior (e.g. brand loyalty) (Chen and Chang, 2008). Cobb-Walgren, *et al* (1995) confirms that brand equity influence brand preference and purchase intentions directly and ultimately influence consumers' brand choice. Also other researchers (e.g. Myers, 2003; Prasad and Dav, 2000; de Chernaony, 2004) pointed out that high equity leads to high brand

preference and loyalty. As brand equity is reflected in brand preference, it could be inferred that brand preference would be reflected in purchase or usage intention (Chang and Liu, 2009).

COO can act as moderating variable and influence consumers' perceived quality, loyalty and brand choice and preference.

According to the Conceptual framework and background five hypotheses examined:

- H1. Consumer-based brand equity has direct and positive influence on consumer's brand preference.
- H2. Consumer-based brand equity has direct and positive influence on consumer's purchase intention.
- H3. Brand preference has direct and positive influence on consumer's purchase intention
- H4. COO has moderating role in relationship between brand equity and purchase intention.
- H5. COO has moderating role in relationship between brand preference and purchase intention.

Research Methodology:

3.1 Sample Selection and Data Collection

Since the purpose of this study is exploring laptop and mobile phone in Iran. Having considered the fact that buying likelihood of this kind of electrical goods was strongly linked to 18-35 age segment in Iran are very high than other age segments. So target population was defined as students of public universities. Among public universities using random sampling three universities include Shahid Beheshti University, Tabriz University and Semnan University were selected and 700 questionnaires randomly distributed among students who have laptops or mobile phones with studied names. Response rate was 96% that between those 602 proved usable for further analysis. The profile of respondents is depicted in Table 1.

Table 1: Description of respondents

Percentage	Frequency	Description	Item
32.4	195	Female	Gender
67.6	407	Male	
14.95	90	Below 20 year	Age
63.13	380	21 to 23 year	
20.26	122	26 to 30 year	
1.66	10	Upper 31 year	Education
7.15	43	STP	
46.85	282	Bachelor's degree	
46	277	Master/PhD	Brand
30.4	183	Nokia	
25.1	151	Sony Ericsson	
25.9	156	Dell	
18.6	112	Sony	

3.2 Questionnaire Development:

We operationalized the constructs in study by employing reflective scale. Expect respondent profile, a five-point response format from 1 strongly disagree to 5 strongly agree was used.

3.2.1 Country of Origin:

The country of origin image scales measures the consumer's perception of the image of the country where the brand originates from there. Assumed that respondents have their idea about the country of brand which they are using now. By review of the COO literature, Roth and Romeo (1992) identified 4 basic dimensions which cover almost all of last researches in this field. These dimensions include innovativeness, design, workmanship, and prestige and we used them in present research as our dimensions.

3.2.2 Brand Equity Dimensions:

Based on Aaker's well-known conceptual model, brand loyalty, perceived quality, brand association, and brand awareness are the four dimensions of brand equity. To measure brand loyalty, two items were adopted from Yoo and Donthu (2001), and one item from Tong and Hawley (2009). Perceived quality was measured by two items adopted from Yoo, *et al.* (2000) and one item by Netemayers, *et al.* (2004). By two items that were adopted from Yoo and Donthu (2001), we measured brand awareness. To measure brand association, 4 items were used that two items adopted from Washburn, *et al.* (2002), an item from Tong and Hawley (2009) research, and one item adopted from Lee and Back (2010).

3.3 Measurements Reliability and Validity:

The validity and reliability of the measurement were estimated via some approaches following guidelines suggested by Shook, *et al.* (2004) for management research. This research used Gerbing and Anderson (1988) two-stage approaches to test the model shown in Fig. 1. In first stage measurement model was examined and in second stage hypothesized relationships were tested. Also Confirmatory factor analysis using LISREL 8.54 for measure reliability performed. The overall model fit index include: chi-square/degree of freedom ($X^2/d.f.$), comparative fit index (CFI), Tucker-Lewis-index (TLI), goodness of fit index (GFI) and root mean square error of approximation (RMSEA) indicated acceptable model fits that shown in table 2.

Table 2 Results of confirmatory factor analysis (n = 602)

Brand Equity	Brand Awareness
Reliability = 0.849	Brand Association
AVE = 0.63	Brand Loyalty
CR = 0.86	Perceived quality
Brand Preference	
Reliability = 0.859	I feel that X is appealing to me
AVE = 0.75	I prefer X to other brand of its type
CR = 0.86	
Purchase Intention	
Reliability = 0.733	I am willing to recommend others to buy other products of X
AVE = 0.58	I am willing to purchase X in the future
CR = 0.73	
Chi-square (X^2) = 37.65, d.f= 16, $X^2/d.f$ = 2.35, RMSEA= 0.047, TLI = 0.99, CFI= 0.99, GFI= 0.98	

All composite reliabilities were more than 0.70, and these show that reliability estimates were satisfactory. Convergent validity was assessed by examining the magnitude and significance of the factor loading and their associated t-values. All items significantly and positively loaded on their corresponding construct. All AVEs were above 0.50 (see in table 2), approving adequate convergent validity. By following Fornel and Larcker (1981) outlined procedure, discriminant validity was measured. All square shared correlation was less than the AVEs any of variables, that this supported discriminant validity (see in table 3).

4. Research findings:

We have done correlation analysis for identifying the relationship between model variables; therefore we used the mean of items' point for this case. Table 3 shows the means, standard deviation and correlation coefficients for variables.

Table 3: Descriptive statistics and correlation

3	2	1	Variable
3.50	3.86	3.35	Mean
0.775	1.089	1.068	Standard deviation
0.53 ^c	0.48 ^c	0.58 ^b	1.Purchase Intention
0.58 ^c	0.75 ^b	0.694 ^a	2.Brand Preference
0.63 ^b	0.766 ^a	0.734 ^a	3.Brand equity

^a Correlation is significant at the 0.01,

^b AVE

^c square shared correlation

For testing hypotheses (H1, H2, H3), we used structural equation modeling (SEM) by LISREL version 8.54. Results of Goodness of fit were measured and with results of rejection or acceptance of hypotheses gathered in Table 4.

Table 4: Constructs hypotheses, standardized coefficient, t-value, and finding

Findings	St.Coe (t-value)	Hypotheses	Constructs/Paths
Supported	0.89 (21.43)	H1	Brand equity → Brand Preference
Supported	0.63 (6.51)	H2	Brand equity → Purchase Intention
Supported	0.32 (3. 29)	H3	Brand Preference → Purchase Intention
Chi-square (X^2) = 37.65, d.f= 16, RMSEA= 0.047, TLI = 0.99, CFI= 0.99, GFI= 0.98			

As table 4 results shows, Brand equity has direct and positive on brand preference, and purchase intention, these result supported H1 and H2, also signs of coefficient were in the hypothesized direction. Brand Preference significantly influence purchase intention positively ($\beta = 0.32$, $t = 3.29$) then H3 was supported.

According to Stone-Romero, & Anderson (1994) for investigation on the effect of moderating variables we can use mediator regression analysis and subgroup correlation analysis. In the subgroup correlation analysis, equality of two or more correlation coefficients which are related to the available subgroups will be tested. In this method, based on scores on a moderator variable (e.g., X_2), K subgroups will be formed and the correlation coefficient between two other variables (such as X_1 and Y) will be calculated based on inside-subgroups. Then the equality of K obtained coefficient will be tested. For this purpose, we use regression coefficients in each subgroup-sample (e.g. $r_1, r_2, \dots r_k$) for calculating the required parameters in Chi square test. U_0 distribution statistic is similar to Chi square distribution with k-1 degree of freedom and can be calculate as follows:

$$U_0 = \sum_{k=1}^K (N_k - 3)(Z_k - Z_0)^2$$

The parameters are:

N_k : Number of K's subgroup members in the sample

Z_0 : weighted average values of Z_k (The Z_k values for each subgroup should be multiplied by the subgroup members and should be divided into the total members of subgroups.)

Z_k value also can be calculated by using the following formula:

$$Z_r = \frac{1}{2} \ln \frac{1+r}{1-r}$$

In order to evaluating the moderate effects of COO, first we calculated the mean of questions, and then according to obtained numbers, the people on the sample should be classified into two subgroups, those with low COO and the people with high COO. Then, for each of the relationship between independent and dependent variables, we should calculate U_0 and Z_k and then we should compare them with Chi- square value, with $k-1 = 1$ degree of freedom and alpha equal to 0.05, which is equal to 3.84. If the value of U_0 was greater than Chi-square value, then the effect of moderate role will be confirm and vice versa. Table 5 shows the final results of subgroup correlation analysis:

Table 5: the result of the moderate role of COO

Variables	Effect of COO variable : Values of U_0	Compare with chi square
Brand Equity – Purchase intention	1.173	1.173<3.84
Brand Preference - Purchase intention	0.398	0.398<3.84

As can see in table 5 COO has not moderate role on the relationship between brand equity and purchase intention and brand preference and purchase intention, because they obtained value of U_0 for that is lower than Chi-square value. Therefore hypothesis number 4 and 5 unsupported.

Conclusion:

The amount of brand loyalty, perceived quality, brand association and brand awareness indicate brand equity. Results show that brand equity influence consumer's brand preference and purchase intentions and this finding supported by past research (e.g. Cobb-Walgren *et al*, 1995; Prasad and Dav, 2000; Myers, 2003; de Chernaony *et al*, 2004; Chen and Chang, 2008; Chen and Liu, 2009).

We know that consumer perceptions about the country almost transfer to the originality of a brand that a country produces that. These consumers feel the brands belong to countries with good image are more reliable rather than brands that produce in countries with a less desirable image, but the results of the hypotheses related to the COO, confirm studies of Chung, *et al* (2009) and recent research of Wong, *et al* (2008) in China. They express their idea about the importance of manufacturer country effects on young people in this way: "According to the globalization and since young people used to see the products from around the world which is produced by a country except the owner of that brand, therefore this issue confirm this claim that country image has no great effect on young people."

Limitations and Future Research:

Despite of lots of effort in this research, it has also many limitations. Some of them are:

1. This study is merely on the basis of comments and opinions provided by Shahid Beheshti, Semnan, Tabriz universities and therefore the results derived from these three universities. Therefore we should consider this point for extending the results to other students and consumers.

2. The current study limited its evaluation on the country image of a manufacture and branding countries only, other external effective factors such as advertising, brand personality and reputation has not considered. Also Internal factors such as price is not considered in this study.

Considering the above points, following suggestions can be conducted for future research:

1. Similar research in other product categories and compared them with this study.

2. Evaluating the Effect of external variables with long-term effects such as brand personality, and the effect of short-term factors such as advertising as moderating variable.

3. Evaluating the concept of brand equity in the services sector, particularly tourism and hospitality industry and identifying the constructing factors of brand equity in these industries.

REFERENCES

- Aaker, D.A., 1991. *Managing Brand Equity: Capitalizing on the value of a brand name*. New York: The Free Press.
- Agarwal, M.K. & V.R. Rao, 1997. An empirical comparison of consumer-based measures of brand equity. *Marketing Letter*, 7: 237-247.
- Atilgan, E., S. Aksoy, & S. Akinci, 2005, Determinants of the brand equity: A verification approach in the beverage industry in Turkey. *Marketing Intelligence & Planning*, 23(3): 237-248.
- Baldauf, A., K. Cravens, A. Diamantopoulos, & K.P. Zeugner-Roth, 2009. The impact of product-country image and marketing effort on retailer-perceived brand equity: An empirical analysis. *Journal of Retailing*, 85(4): 437-452.
- Boo, S., J. Busser, & S. Baloglu, 2009, A model of customer-based brand equity and its application to multiple destinations. *Tourism Management*, 30(2): 219-231.
- Chang, H.H., & Y.M. Liu, 2009. The impact of brand equity on brand preference and purchase intention in the service industries. *The Service Industries Journal*, 29(12): 1687-1706.
- Chen, C., & Y. Chang, 2008. Airline brand equity, brand preference, and purchase intentions-The moderating effects of switching costs. *Journal of Air Transport Management*, 14: 40-42.
- Chen, Y.S., 2009, The drivers of green brand equity; green brand image, green satisfaction and green trust. *Journal of Business Ethics*, 93(2): 307-319.
- Chung, J.E., D.T. Pysarchik, & S.J. Hwang, 2009. Effects of Country-of-Manufacture and brand Image on Korean Customers' Purchase Intention. *Journal of Global Marketing*, 22: 21-41.
- Cobb-Walgren, C.J., C.A. Ruble, & N. Donthu, 1995. Brand equity, brand preference, and purchase intent. *Journal of Advertising*, 24(3): 25-40.
- de Chernatony, L., F. Harris, & G. Christodoulides, 2004. Developing a brand performance measure for financial service brands. *The Service Industries Journal*, 24(2): 15-33.
- DelVecchio, D., C.B. Jarvis, R.R. Klink, & B.B. Dineen, 2007. Leveraging brand equity to attract human capital. *Marketing Letter*, 18: 149-164.
- Fornell, C., & D.F. Larcker, 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18: 39-50.
- Gerbing, D., & J. Anderson, 1988, An updated paradigm for scale development incorporating in dimensionality and its assessment. *Journal of Marketing Research*, 25(2): 186-19.
- Keller, K.L., 1993. Conceptualizing, Measuring, and Managing Customer-Based Brand Equity, *Journal of Marketing*, 57: 1-22.
- Keller, K.L., 2003. *Strategic brand management: Building, measuring and managing brand equity*. Upper Saddle River, New Jersey, Pearson Education Inc.
- Kim, C.K., D. Han & S.B. Park, 2001. the effect of brand personality and brand identification on brand loyalty: Applying the theory of social identification, *Japanese Psychological Research*, 43(4): 195-206.
- Kim, H.B., & W.G. Kim, 2005. The relationship between brand equity and firms' performance in luxury hotels and chain restaurants. *Tourism Management*, 26: 549-560.
- Lee, J. S., & K.J. Back, 2010. Reexamination of attendee-based brand equity. *Tourism Management*, 31(3): 395-401.
- Leone, R.P., V.R. Rao, K.L. Keller, A.M. Luo, L. McAlister, & R. Srivastava, 2006. Linking brand equity to customer equity. *Journal of Service Research*, 9(2): 125-138.

- Lim, W.S., & S.J. Tan, 2009. Using brand equity to counter outsourcing opportunism: A game theoretic approach. *Marketing Letter*, 20: 369-383.
- Madden, T.J., F. Fehle, & S. Fournier, 2006. Brands matter: An empirical demonstration of the creation of shareholder value through branding. *Journal of the Academy of Marketing Science*, 34(2): 224-235.
- Miller, J and D. Muir, 2004. *The Business of Brands*, John Wiley & Sons Pub, UK
- Motameni, R, & M. Shahrokhi, 1998. Brand equity valuation: a global perspective. *Journal of Product & Brand Management*, 7(4): 275-290.
- Myers, C., 2003, Managing brand equity: a look at the impact of attributes. *Journal of Product & Brand Management*, 12: 39-51.
- Na, W.B., R. Marshall, & K.L. Keller, 1999. Measuring brand power: validating a model for optimizing brand equity. *Journal of Product & Brand Management*, 8: 170-184.
- Nayir, D.Z., & S.S. Durmusoglu, 2008. Country image in the context of European Union membership: the Turkish case. *Journal of Management Development*, 27(7): 791-808.
- Netemeyer, R.G., B. Krishnan, C. Pullig, G. Wang, M. Yagci, D. Dean, J. Ricks, & F. Wirth, 2004. Developing and validating measures of facets of customer based brand equity. *Journal of Business Research*, 57 (2): 209-224.
- Pappu, R., P.G. Quester, R.W. Cooksey, 2005. Consumer-based brand equity: improving the measurement - empirical evidence. *Journal of Product & Brand Management*, 14(3): 143-154.
- Prasad, K., & C.S. Dev, 2000. Managing hotel brand equity. *Cornell Hotel and Restaurant Administration Quarterly*, 41(3): 22-31.
- Roth, M.S., & J.B. Romeo, 1992. Matching product category and country image perceptions: A framework for managing country-of-origin effects. *Journal of International Business Studies*, 23(3): 477-497.
- Shook, C.L., D.J. Ketchen, G.T.M. Hult, & M.K. Kacmar, 2004. An assessment of the use of structural equation modeling in strategic management research. *Strategic Management Journal*, 25: 397-404.
- Stone-Romero, E.F., & L.E. Anderson, 1994. Relative Power of Moderated Multiple Regression and the Comparison of Subgroup Correlation Coefficients for Detecting Moderating Effects. *Journal of Applied Psychology*, 79(3): 354-359.
- Takor, M., & L. Katsanis, 1997. A model of brand and country effects on quality dimensions: Issues and implementations. *Journal of International Consumer Marketing*, 9(3): 70-100.
- Tong, X, & J. M. Hawley, 2009. Measuring customer-based brand equity: empirical evidence from the sport wear market in China. *Journal of Product & Brand Management*, 18(4): 262-271.
- VanAuken, B., 2005, *The brand management checklist: proven tools and techniques for creating winning brands*, Kogan-Page Pub, London, UK
- Washburn, J.H. & R.E. Plank, 2002. Measuring brand equity: An evaluation of a consumer-based brand equity scale. *Journal of Marketing Theory and Practice*, 10: 46-62.
- Wong, Y.C., M.J. Polonsky, & R. Garma, 2008. The impact of consumer ethnocentrism and country of origin sub-components on high involvement products on young Chinese consumers' product assessments. *Asia Pacific Journal of Marketing*, 20(4): 455-478.
- Yang, Z., & M. Jun, 2002. Consumer perception of service-quality: from Internet purchaser and non purchaser perspectives. *Journal of Business Strategy*, 19: 19-41.
- Yasin, N., M. Nasser Noor, & O. Mohamad, 2007, Does image of country-of-origin matter to brand equity. *Journal of Product & Brand Management*, 16(1): 38-48.
- Yoo, B., N. Donthu, & S. Lee, 2000. An examination of selected marketing mix elements and brand Equity. *Journal of the Academy of Marketing Science*, 28(2): 195-211.
- Yoo. B., & N. Donthum, 2001. Developing and validating a multidimensional consumer based brand equity scale. *Journal of Business Research*, 52: 1-14.
- Zeugner-Roth, K.P., & A. Diamantopoulos, 2009. Advancing the country image construct: Reply to sameiee's (2009) commentary. *Journal of Business Research*, 63(4): 446-449.
- Zeugner-Roth, K.P., A. Diamantopoulos, & A. Montesinos, 2008. Home country image, country brand equity and consumers' product preferences: An empirical study. *Management International Review*, 5: 576-602.