



Countering negative country-of-origin effects

The role of evaluation mode

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Received March 2008
Revised November 2008
Accepted December 2008

Abstract

Purpose – As multinational firms seek to acquire competitive cost advantages through global sourcing, it is also important for them to develop effective strategies to reduce possible damage of a negative country-of-origin (COO) effect. This study aims to examine whether brand image and evaluation mode could alleviate a negative COO effect.

Design/methodology/approach – A $2(\text{COO}) \times 2(\text{brand}) \times 2(\text{evaluation mode})$ experimental design was employed in order to examine whether brand and COO effects on product evaluation vary under different evaluation modes. The data were analyzed by a repeated measure MANOVA.

Findings – The results showed that products made in favourable countries were rated higher in joint evaluation mode than in separate evaluation mode. Conversely, products made in unfavourable countries were better evaluated in separate evaluation mode than in joint evaluation mode. The results of the study are not in favour of the notion that a strong brand image could overcome the negative effect of COO.

Research limitations/implications – Conclusions of the study suggest that the COO effect plays an equally important role in consumer product evaluation for both strong and weak brands. Thus, even for a product with strong brand image, the negative consequences of COO stemming from consumers' unfavourable attitudes towards the manufacturing country are not likely to be completely eliminated. Moreover, to alleviate the negative impact of unfavourable COO, marketers may want to avoid direct comparison between products made in unfavourable countries with those made in favourable countries, regardless of their brand strength.

Practical implications – When marketing a product made in an unfavourable country, marketers should manage to create a selling environment facilitating a separate evaluation mode. In contrast, marketers should proactively manage to display products from favourable countries along with those from unfavourable countries in order to further enhance quality perceptions.

Originality/value – The results of the study could help marketers employ advantageous merchandizing or advertising strategies to lessen the negative effect of COO.

Keywords Country of origin, Brand image, Competitive advantage

Paper type Research paper

Introduction

In today's globalized competition, many multinational companies have moved or outsourced their production to low-cost locations, usually in developing countries. Although manufacturing in developing countries can assist corporations in enhancing their cost advantages (Cho and Kang, 2001; Trent and Monczka, 2005), corporations also face the risk of potential loss due to negative country-of-origin (COO) effect. It has long been evident that where a product is made can have an impact on consumer product evaluation and purchase decision (Bilkey and Nes, 1982; Gaedeke, 1973; Han



and Terpstra, 1988; Okechuku, 1994). Many studies have also concluded that consumers typically view products made in developing countries less favourably (Cordell, 1992; Wang and Lamb, 1980). Therefore, as multinational firms seek to acquire competitive cost advantages through global manufacturing or global sourcing, it is also important for them to develop effective strategies to reduce possible damage of negative COO (Cordell, 1992; Li *et al.*, 2000).

As consumers' sensitivity to COO has become a critical issue for marketers, many researchers focused their attention on the relative importance of COO information and other product cues (e.g. price, store name). Prior studies have found that the information value of COO might depend upon the availability of other information (Johansson, 1989; Lim *et al.*, 1994; Peterson and Jolibert, 1995). In the plethora of aggressively marketed brands, some scholars have proposed that COO of a product may not be an important determinant for well-established brands (Cordell, 1992; Han and Terpstra, 1988; Tse and Gorn, 1993). Under those circumstances, managers of strong brands will have a wider choice of outsourcing locations than those of weak brands (Jo *et al.*, 2003). However, inconsistent conclusions have emerged concerning whether brand information inhibits customer's reliance on COO in purchase decisions (Pharr, 2005; Tse and Gorn, 1993). This study attempts to explore this important issue from the perspective of evaluation mode. We propose that how products are evaluated (jointly or separately) may influence the effects of brand and COO on product evaluation.

Customers are often presented with the options in either joint evaluation mode (JE) or in separate evaluation mode (SE). In JE, options are presented together and can be compared directly. In SE, options are presented one at a time and evaluated separately (Bazerman *et al.*, 1999; Hsee, 1996). Researchers have found that customers may exhibit incongruent preference in JE and in SE (Hsee, 1996; Hsee *et al.*, 1999; Hsee and Leclerc, 1998; Mellers and Cooke, 1996). This phenomenon has provided many practical implications for merchandising and advertising strategies. For example, Hsee and Leclerc (1998) suggested that superior products (e.g. luxury cars) would be evaluated higher when presented individually (e.g. using own store) than when presented jointly (e.g. through dealers) with lesser products (e.g. low-end cars). Conversely, lesser products will receive higher evaluation when exhibited along with superior products than when presented in isolation.

In this research, we propose that creating an environment facilitating a certain evaluation mode may assist to counter negative COO effect. We will examine whether the effects of brand and COO are contingent upon evaluation modes. The results could help marketers employ advantageous merchandizing or advertising strategies to lessen negative effect of COO. In the following, we first review germane literature and formulate hypotheses. Then, we illustrate research design and procedures. Next, we present our results and test the formulated hypotheses. Last, we discuss managerial implications and limitations of this study.

Literature review

Country-of-origin effect

COO effect refers to how customers perceive products made in a particular country (Roth and Romeo, 1992). It has long been evident that COO has an impact on product evaluation and purchase decision (Bilkey and Nes, 1982; Han and Terpstra,

1988; Johansson *et al.*, 1985). Several explanations have been proposed to interpret how consumers react to COO information. Among them, the “halo effect” and “summary effect” are two of the most common ones. According to “halo effect” model, COO serves as a cognitive cue for consumers to infer their beliefs regarding other attributes of a product and thus overall product evaluation (Erickson *et al.*, 1984; Han, 1989; Johansson *et al.*, 1985), especially when consumers are not capable of detecting the true quality (Hong and Wyer, 1989). On the other hand, the “summary effect” model suggested that consumers recode and abstract their knowledge about a country’s products into their image of the country (Johansson, 1989; Maheswaran, 1994). Both explanations suggested that a country’s image serves as a hint to infer quality of products from that country. Among many determinants of a country’s image, stage of economic development of a country has been the most commonly cited one (Roth and Romeo, 1992; Samiee, 1994; Wang and Lamb, 1980). Hence, customers typically hold unfavourable attitudes and have lower quality perceptions toward products made in less developed countries (Cordell, 1993; Kaynak and Cavusgil, 1983).

Factors moderating COO effect

In past research, many factors have been revealed to impact consumers’ reliance on COO, such as consumer expertise (Chiou, 2003; Maheswaran, 1994; Schaefer, 1997), product category (Eroglu and Machleit, 1989; Kaynak and Cavusgil, 1983; Roth and Romeo, 1992), product familiarity (Johansson *et al.*, 1985; Lee and Ganesh, 1999), and product experience (Tse and Gorn, 1993). Other studies also suggested that COO effect could be weaker if other information or extrinsic cues are available (Hastak and Hong, 1991; Hong and Wyer, 1989; Johansson, 1989; Kaynak and Cavusgil, 1983; Lim *et al.*, 1994). For example, COO effect can be contingent upon the availability of brand (Han and Terpstra, 1988; Tse and Lee, 1993), price (Cordell, 1991; Speece and Nguyen, 2005), and store name (Chao, 1989; Lin and Sternquist, 1994) information. Among all these moderating factors, brand has been one of the most intensively researched (Pharr, 2005). Hence, we will discuss how brand influences COO effect in great depth in the following section.

Brand as a moderator of COO

The importance of brand in product evaluation process has long been acknowledged in consumer behaviour literature (Jacoby *et al.*, 1971; Robertson, 1987). Conceivably, when information about brands is present, customers would tend to rely less on COO when evaluating a product. Numerous studies have examined whether brand could moderate the COO effect on product evaluation; however, the results were inconsistent. Some studies have suggested that a highly regarded brand name can help alleviate negative COO effects (d’Astous and Ahmed, 1992; Han and Terpstra, 1988; Kim and Pysarchik, 2000; Lee and Ganesh, 1999; Tse and Lee, 1993). On the contrary, other studies have reported that brand could not override negative impact of COO (Ahmed and d’Astous, 1996; Cordell, 1992; Gaedeke, 1973; Teas and Agarwal, 2000; Tse and Gorn, 1993; Wall *et al.*, 1991).

In order to solve this inconsistency, recent studies have more closely explored how brand influenced COO effect by examining several brand-related constructs. For example, Hui and Zhou (2003) reported that negative COO effect is significantly

weaker for high equity brands than for low equity brands when there is incongruence between brand origin and country of manufacture. Based on accessibility-diagnostics theories, Jo (2005) and Jo *et al.* (2003) found the COO effect is stronger for low diagnostic brands than for highly diagnostic brands. They therefore suggested that managers of strong brands could have a wider selection of manufacturing countries than those of weak brands in order to achieve cost advantages. Pharr (2005) reviewed empirical studies of COO conducted from 1995 to 2005, and concluded that holistic brand constructs (such as brand image or brand equity) could moderate the COO effect on product evaluation and purchase intention. Thus, we hypothesize that:

- H1. The effect of COO on product evaluation will be weaker for products of a strong brand than those of a weak brand.

Effect of evaluation mode on product evaluation

The *joint-separate preference reversal* has been a widely observed phenomenon in psychology research (Bazerman *et al.*, 1999; Hsee, 1996; Hsee *et al.*, 1999; Hsee and Leclerc, 1998; Mellers and Cooke, 1996). Researchers in this area suggested that people may exhibit different or even reverse preference for the same options under different evaluation modes (“joint evaluation mode” vs “separate evaluation mode”). In joint evaluation mode (JE), the options are presented together so that decision makers can make direct comparisons. In separate evaluation mode (SE), each option is presented one at a time and evaluated independently. Under these two different circumstances, the weighting of product attributes shifts, resulting in preference change. One prevailing theory that helps explain why joint-separate preference reversal occurs is the evaluability hypothesis (Gonzalez-Vallejo and Moran, 2001; Hsee, 1996; Hsee *et al.*, 1999; Hsee and Leclerc, 1998). The evaluability hypothesis can be stated as follows (Hsee, 1996, p. 250) (For an example, see Appendix I):

[...] if two options involve a trade-off between two attributes and one of the attributes is hard to evaluate independently and the other is easy, then the former attribute will have a lower weight in the separate evaluation than in the joint evaluation.

In this hypothesis, an attribute is defined as an easy-to-evaluate one when it has well-developed distributional characteristics and consumers have formed their standard in evaluating the attribute. Therefore, consumers can judge the quality level of this attribute without any anchor or reference point. On the contrary, to say an attribute is hard-to-evaluate means evaluators have little knowledge about prototypical values of this attribute so that they cannot judge how good a given value is without comparison (Hsee, 2000; Willemsen and Keren, 2004).

According to the foregoing discussion, we propose that consumers’ preference for products might shift under different evaluation modes when options involving a trade-off between brands and COOs. The evaluability of brand compared to that of COO would have an impact on consumer product evaluation under different evaluation modes (JE vs SE). Thus, we hypothesize:

- H2. Evaluation mode (joint versus separate) will moderate consumers’ product evaluation.

Comparative evaluability of brand and COO

The impact of evaluation mode on the strength of brand and COO effect conceivably depends upon the comparative evaluability of brand name and COO. This study proposed that the evaluability of brand name is higher than COO in general. Although no existing study has examined the relative evaluability of brand and COO, evidence from related studies may provide some support of this assumption.

The information integration theory proposed that consumers evaluate a product by assigning weight and value to each piece of information, and then multiplying the weight by the value to form an overall product evaluation (Anderson, 1971, 1981; Fishbein and Ajzen, 1975). In addition, prior research has demonstrated that decision makers may anchor on the most important piece of information and then make adjustments on the pallid background information (Tversky and Kahneman, 1974). On the basis of the anchoring and adjustment heuristic (Lopes, 1982), the weight given to each piece of information is commensurate with its creditability and reliability (Anderson, 1971). In other words, people generally rely more on valuable and diagnostic information when making a judgment. Conceivably, if an attribute of a product is weighted more heavily in decision-making process, it suggests its higher evaluability.

According to the above arguments, exploring the influence of COO relative to brand on product evaluation might help to infer the evaluability of brand and COO. Although COO stereotypes has been found to affect how customers perceive product quality (e.g. Heslop and Papadopoulos, 1993; Janda and Rao, 1997; Darling and Kraft, 1977), results of meta-analysis (Peterson and Jolibert, 1995) indicated that COO effect on product evaluation became weaker when incorporating with other variables (e.g. brand name, price). From the perspective of information integration, the lesser weight assigned to COO relative to other cues implied the comparatively lower evaluability of COO for customers. Therefore, COO is seemingly a harder-to-evaluate attribute than brand. In real life, customers may find it more difficult to infer the quality of a product if the COO information is present in isolation (Nowlis and Simonson, 1997). For instance, most consumers may have difficulty assessing a television set with a tag "Made in Indonesia" if no other products are available for comparison since customers are usually less knowledgeable with COO information. In this situation, the negative impact of unfavourable COO tends to be less salient. However, if this television set is displayed along with another "Made in Japan" television set, customers would find the television set made in Indonesia less attractive than that made in Japan. They may dramatically downgrade their quality perception of the television set made in Indonesia. Thus, the negative COO effect on product evaluation becomes stronger.

Conversely, brand is likely an easier-to-evaluate attribute than COO. Consumers usually have formed their attitudes towards established brands because people have received large amounts of information about brands through mass media (Friedman, 1990; Holt *et al.*, 2004). Thus, some scholars proposed that the effects of branding on product beliefs and evaluations should be more pronounced than COO effects (Leclerc *et al.*, 1994; Thakor and Pacheco, 1997). In addition, Janda and Rao (1997) suggested that a person's stereotype of brand name is more specific and that of COO is more general. Because a specific stereotype is more effective compared to a general stereotype, brand name may influence product evaluation more than a COO. Additionally, it has been proposed that consumers are more likely to use brand name

than other extrinsic cues such as price or COO, because the information “chunked” or retrieved in the familiar brand name is more useful for product evaluation (Monroe and Krishnan, 1985; Olson and Jacoby, 1977). Past empirical results have also supported that brand name is weighted more heavily than COO when they are evaluated jointly. For example, Mazursky and Jacoby (1985) reported that consumers prefer to know brand name more than any other cues when assessing quality. Holt *et al.* (2004) investigated six product categories, and found that COO effect on consumers’ perceptions of product quality was only one-third as strong as those driven by brand name. Moreover, Ozretic-Dosen *et al.* (2007) also found that, with a few exceptions, brand name has greater influence than COO in evaluating food product.

According to information integration theory, brand is highly weighted in product evaluation process, and therefore appear to be an easier-to-evaluate attribute in most conditions. In most purchase situations, even if a brand name is present by itself, consumers are capable of judging the product quality of that brand without much difficulty. For instance, customers can easily judge that cars of Toyota are more reliable and high-performing without comparison with competing brands.

Based on the foregoing discussion, we proposed that COO would be a relatively harder-to-evaluate attribute than brand. According to evaluability hypothesis, COO (the hard-to-evaluate attribute) would have a lower weight in SE than in JE, and brand (the easy-to-evaluate attribute) would have a higher weight in JE than in SE (Hsee, 1996; Hsee *et al.*, 1999). Therefore, the effect COO would be weaker in SE than in JE, and the effect of brand would be stronger in SE than in the JE. The following hypotheses are thus formulated:

- H3. The effect of COO on product evaluation will be stronger in joint evaluation mode than in separate evaluation mode.
- H4. The effect of brand on product evaluation will be weaker in joint evaluation mode than in separate evaluation mode.

The frameworks and hypotheses of current study are illustrated in Figure 1.

Methodology

Pretests and manipulations

Prior studies have maintained that brand familiarity may contribute to reduce the effect of COO on product evaluation (Johansson *et al.*, 1985; Lee and Ganesh, 1999). In order to manipulate brand strength while controlling the impact of brand familiarity, we aimed to select brands of equal familiarity but different strength for this experiment. Besides, in order to ascertain that evaluability of brands and countries in this study is not a reflection of participants’ familiarity with cues (Bazerman *et al.*, 1999; Hsee and Leclerc, 1998), we selected products of high customer familiarity. According to the foregoing discussion, laptop computers were chosen as target stimuli for this experiment since most participants are familiar with this product category, which makes it easier to find two brands of equal familiarity but of different strength.

A pretest was conducted to determine appropriate brands and countries in our experiment. In this pretest, 30 laptop computer owners were asked to rate their perceived quality towards laptop computer brands marketed in Taiwan. In addition, using three items derived from previous COO research (Teas and Agarwal, 2000), COO perceptions of seven laptop computer-producing countries were measured.

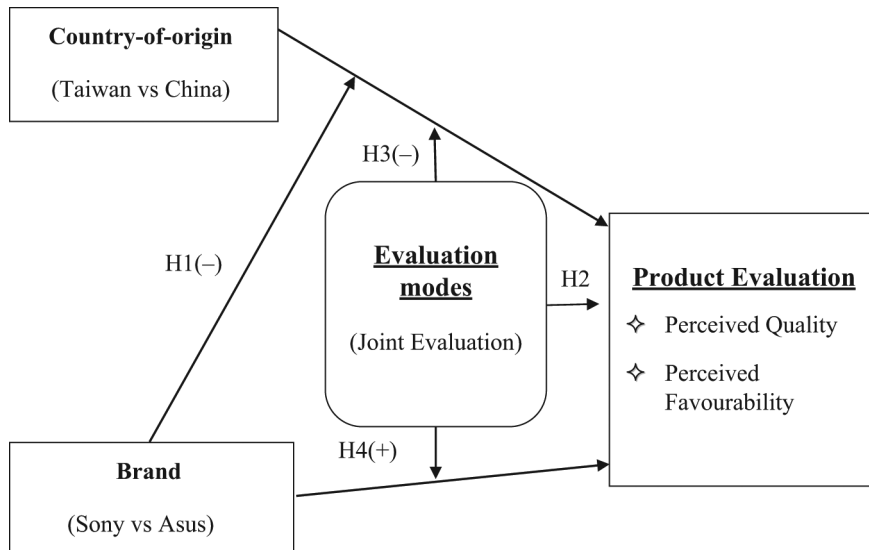


Figure 1. Frameworks and hypotheses of current study

Respondents' familiarity with these brands and countries was also investigated. The results were illustrated in Tables I and II.

According to the results of this pretest, one strong brand (Sony, $M = 4.64$) and one weak brand (Asus, $M = 3.56$) were chosen to manipulate brand effect. The familiarity scores of Sony and Asus were both at fairly high level. An examination of brand familiarity between Sony ($M = 4.63$) and Asus ($M = 4.50$) revealed insignificant result ($t_{29} = 0.779, p = 0.442$), so that the impact of brand familiarity on COO effect was controlled. To select COO manipulations, countries representing unrealistic scenarios were excluded. For example, an Asus (a local laptop computer brand in Taiwan) computer made in Japan is unrealistic for Taiwanese customers and may cause biased judgment. After considering consumers' country familiarity along with the reality of scenarios, Taiwan ($M = 4.12$) was chosen to represent the favourable COO, and China ($M = 2.03$) was selected to represent the unfavourable COO[1].

In order to understand the evaluability of brand and COO, another pretest was conducted. 30 laptop computer owners were recruited to rate the following items on

Brand	Acer	Asus	BenQ	Dell	IBM	LEMEL	Sony
Brand familiarity	4.50	4.50	3.733	4.133	4.80	3.20	4.633
Perceived quality	3.822	3.556	2.90	4.378	4.80	2.533	4.644

Table I. The pretest results of brand effects

Country	China	Germany	Japan	Korea	Malaysia	Taiwan	USA
COO score	2.033	3.85	4.833	3.317	2.217	4.117	4.183

Table II. The pretest results on country-of-origin effects

seven-point Likert scale: “When ‘Made in Taiwan (China)’ information is present, could you judge the product quality of a laptop computer?” and “When the ‘Made by Sony (Asus)’ information is present, could you judge the product quality of a laptop computer?”

The results showed that the mean evaluability scores in Sony and Asus conditions were 5.80 and 5.67, respectively, and in Taiwan and China conditions were 4.83 and 4.43. The results suggest that brand was a more evaluable attribute than COO for laptop computer buyers[2].

Research design and procedures

This study employed a 2(COO: Taiwan vs. China) × 2(Brand: Sony vs. Asus) × 2(Evaluation Mode: joint evaluation vs. separate evaluation) design in which each respondent was asked to evaluate four different laptop computers (Sony/made in Taiwan, Sony/made in China, Asus/made in Taiwan, Asus/made in China) either in joint evaluation mode or in separate evaluation mode. The sample consisted of 232 students from three colleges in Taiwan (59 MBAs and 173 undergraduates; 104 males and 128 females) who volunteered to participate in this experiment. The students were randomly assigned in two groups. Students in one group were exposed to joint evaluation mode, and those in other group were exposed to separate evaluation mode. In joint evaluation condition, respondents saw four laptop computers printed on the same page. They were informed that they had to compare these computers first, and then rate these four computers jointly. In separate evaluation condition, four laptop computers were listed on separate pages and shown to respondents sequentially. Respondents rated each of the computers one after one. To ensure no direct comparison, respondents did not get the next page of the questionnaire until they turned in previous page. In both conditions, the order of these four computers was counterbalanced to prevent biases due to the sequences.

The questionnaire was written in Chinese. In the first section of the questionnaire, participants were asked to imagine that they were shopping for a laptop computer. Four different laptop computers (Sony/made in Taiwan, Sony/made in China, Asus/made in Taiwan, Asus/made in China) were the available options. The product specifications of these four computers were identical (Intel Pentium M Processor 1.73 GHz; 14.1” monitor; 512MB Memory; 60 GB Hard drive). To increase participants’ attention, the brand name and COO information were printed in boldface type and larger font size. Next, participants evaluated these four laptop computers by rating their perceived quality and perceived favourability of these four laptop computers. A four-item scale, modified from scales of Dodds *et al.* (1991) and Erevelles *et al.* (1999), was used to measure subjects’ perceived quality. Participants’ perceived favourability was measured by three questions proposed by Liu (2001) (see Appendix 2 for details). These items were all rated on seven-point Likert scale. The last section included questions investigating the respondents’ knowledge of laptop computers and demographic variables.

Results

Prior to testing the hypotheses, the influence of respondents’ demographic characteristics (e.g. age, gender, product knowledge level) on product evaluation was analyzed. Among the demographic variables, none had a significant effect on product

evaluation. The internal consistency of both scales (perceived quality and perceived favourability) had satisfactory Cronbach alphas (0.92 and 0.88).

To test our hypotheses, the data were analyzed by a repeated measure MANOVA. Brand (Sony vs. Asus) and COO (Taiwan vs. China) were designed as within subjects factors, and Evaluation Mode (joint evaluation vs. separate evaluation) was a between subjects factor. The two dependent variables were perceived quality and perceived favourability.

The results of MANOVA revealed significant main effects of Brand, COO, and Evaluation Mode on both perceived quality and perceived favourability. For interaction effects, only one interaction (COO × Evaluation Mode) was significant on both dependent variables. Since the MANOVA results were significant, separate repeated measure ANOVAs were performed on each of the dependent variables to identify potential differences (see Tables III and IV).

Significant main effect of Brand revealed that consumer product evaluations for Sony and Asus were significantly different (for perceived quality, $F_{1,230} = 47.136, p <$

Source	SS	df	MS	F	Sig.
<i>Within-subjects effects</i>					
Brand	32.907	1	32.907	47.136	0.000
Brand × Evaluation mode	0.510	1	0.510	0.730	0.394
Error (Brand)	160.568	230	0.698		
COO	550.504	1	550.504	397.817	0.000
COO × Evaluation mode	22.891	1	22.891	16.542	0.000
Error (COO)	318.277	230	1.384		
Brand × COO	0.558	1	0.558	3.694	0.056
Brand × COO × Evaluation mode	0.011	1	0.011	0.075	0.784
Error (Brand × COO)	34.728	230	0.151		
<i>Between-subjects effects</i>					
Evaluation mode	14.688	1	14.688	4.784	0.030
Error	706.160	230	3.070		

Table III.
Summary of repeated
measures ANOVA on
perceived quality

Source	SS	df	MS	F	Sig.
<i>Within-subjects effects</i>					
Brand	34.527	1	34.527	34.274	0.000
Brand × Evaluation mode	0.417	1	0.417	0.414	0.521
Error (Brand)	231.695	230	1.007		
COO	421.831	1	421.831	275.903	0.000
COO × Evaluation mode	38.492	1	38.492	25.176	0.000
Error (COO)	351.649	230	1.529		
Brand × COO	0.035	1	0.035	0.148	0.701
Brand × COO × Evaluation mode	0.362	1	0.362	1.552	0.214
Error (Brand × COO)	53.687	230	0.233		
<i>Between-subjects effects</i>					
Evaluation mode	17.932	1	17.932	4.570	0.034
Error	902.512	230	3.924		

Table IV.
Summary of repeated
measures ANOVA on
perceived favourability

0.001; for perceived favourability, $F_{1,230} = 34.274$, $p < 0.001$). An examination of the mean scores (contained in Table V) suggested respondents' evaluations of Sony (for perceived quality, $M = 4.685$; for perceived favourability, $M = 4.568$) were significantly higher than those for Asus (for perceived quality, $M = 4.308$; for perceived favourability, $M = 4.182$). Moreover, significant main effect of COO indicated that respondents differ in their evaluations for product made in Taiwan and made in China (for perceived quality, $F_{1,230} = 397.817$, $p < 0.001$; for perceived favourability, $F_{1,230} = 275.903$, $p < 0.001$). Average scores revealed in Table V also showed that laptop computers made in Taiwan (for perceived quality, $M = 5.267$; for perceived favourability, $M = 3.726$) were evaluated better than those made in China (for perceived quality, $M = 5.050$; for perceived favourability, $M = 3.701$) on both perceived quality and perceived favourability. These results echoed those of our pretest.

H1 predicts that COO effect on product evaluation will be weaker for products of a strong brand than for weak brand. Specifically, the effect of COO (Taiwan vs. China) on product evaluation should be stronger for laptop computers of Asus than those of Sony. However, ANOVA results on perceived quality and perceived favourability both revealed insignificant interaction effect between Brand and COO (for perceived quality, $F_{1,230} = 3.694$, $p = 0.056$; for perceived favourability, $F_{1,230} = 0.148$, $p = 0.701$). These results indicated that strong brand image did not reduce the negative COO effect on product evaluation. Therefore, *H1* was not supported.

H2 states that evaluation mode (joint versus separate) will moderate consumers' product evaluation. The ANOVA results revealed a significant main effect of Evaluation Mode on product evaluation (for perceived quality $F_{1,230} = 4.784$, $p < 0.05$; for perceived favourability $F_{1,230} = 4.570$, $p < 0.05$). The average scores revealed in Table V indicated that product evaluations of laptop computers presented in JE (for perceived quality, $M = 4.622$; for perceived favourability, $M = 4.514$) were higher than those presented in SE (for perceived quality, $M = 4.317$; for perceived favourability, $M = 4.236$). These results supported *H2*.

H3 predicts that COO effect on product evaluation will be stronger in JE than in SE. Specifically, the difference of product evaluations between Taiwan and China conditions will be smaller in SE than in JE. The ANOVA results revealed significant interaction effect between COO and Evaluation Mode on both perceived quality and perceived favourability (for perceived quality, $F_{1,230} = 16.542$, $p < 0.001$; for perceived favourability, $F_{1,230} = 25.176$, $p < 0.001$). The means and standard deviations in each of the experimental conditions are presented in Table VI. Figure 2 depicts the interaction effect between COO and Evaluation Mode on perceived quality, and Figure 3 depicts that on perceived favourability. A similar patterns of both figures indicated that the enhanced product evaluation due to a favourable country image (Taiwan) is significantly larger when products are presented jointly than presented separately. This suggested that COO effect was stronger in JE than in SE – supporting *H3*.

Moreover, *H4* states the brand effect on product evaluation will be weaker in JE than in SE. That is to say, the difference of product evaluations between Sony and Asus conditions should be larger in SE than in JE. However, the Brand by Evaluation Mode interaction was not significant in either ANOVA results. These results indicated

	Brand		Country-of-origin				Evaluation mode	
	Sony		Asus		China		Separate	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Perceived quality	4.685	0.061	4.308	0.066	5.267	0.059	3.726	0.078
Perceived favourability	4.568	0.073	4.182	0.073	5.050	0.070	3.701	0.083
							4.622	0.081
							4.514	0.092
							4.317	0.081
							4.236	0.092

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Table V.
Mean scores (standard
deviations) of main
treatment

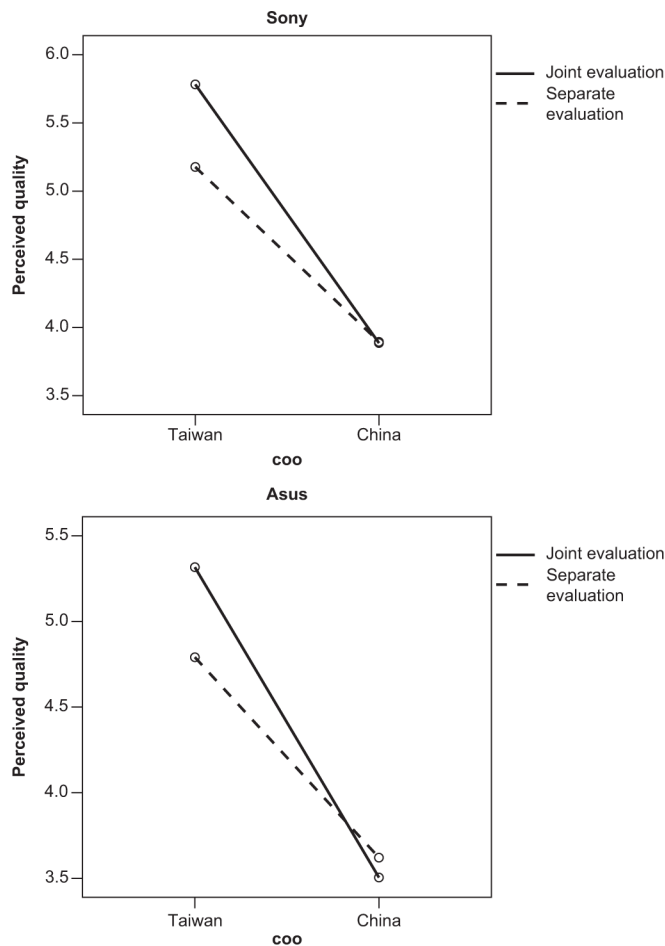


Figure 2.
COO by evaluation mode
interaction on perceived
quality

that brand effect on product evaluation in JE was not significantly different from that in SE. These results did not support *H4*.

Discussions and conclusions

The fact that main effects of Brand and COO of the study are significant suggests that both brand and COO are important determinants of consumers' perceptions of quality and favourability. However, not supporting *H1*, the results indicated that brand did not interact with COO to affect perceived quality and perceived favourability. This suggests that for products of both strong brands and weak brands, COO plays an equally important role in influencing consumer product evaluation. This finding is consistent with the results reported by Cordell (1992), Tse and Gorn (1993) and Wall *et al.* (1991). In the globalized world today, some studies indicated that the brand name could moderate COO effects on product evaluation

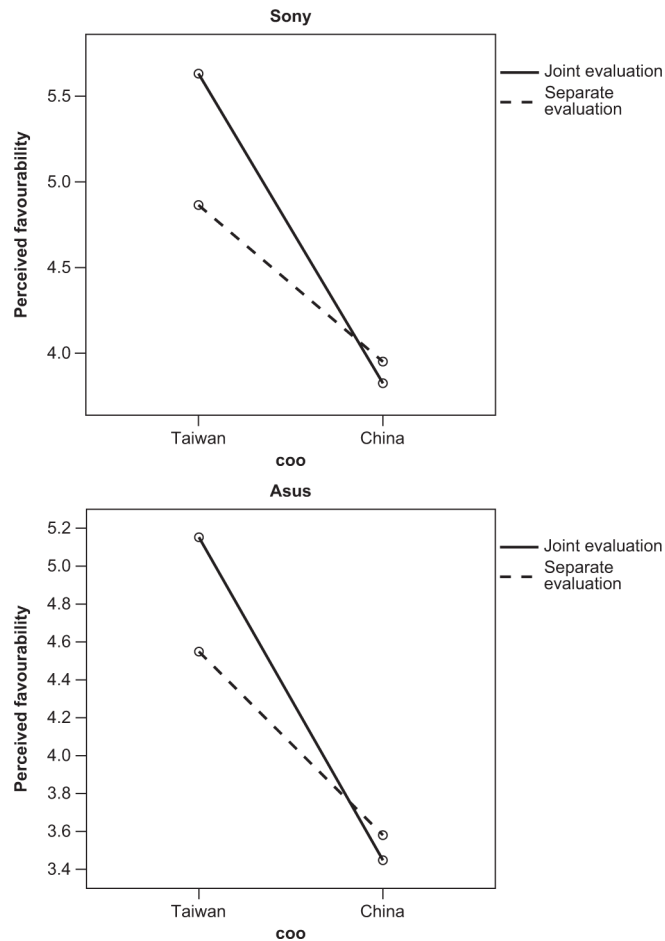


Figure 3.
COO by evaluation mode
interaction on perceived
favourability

(Han and Terpstra, 1988; Kim and Pysarchik, 2000; Lee and Ganesh, 1999; Tse and Lee, 1993). The results of this study, however, suggest that customers' reliance on COO information when evaluating a product did not change according to brand image. Therefore, even for a product of strong brands, the consequences caused by negative COO are still unlikely to be eliminated. In other words, producing in or sourcing to less developed countries is equally harmful to strong brands and weak brands. This conclusion is inconsistent with the results of Jo (2005) and Jo *et al.* (2003), which they suggested that managers of a strong brand have more options when choosing manufacturing locations. According to the foregoing discussion, managers of both strong and weak brands should take COO effect into account when formulating global sourcing strategies (Chao, 1993; Li *et al.*, 2000). If producing in developing countries is unavoidable to achieve a cost advantage, designing adequate marketing programs to alleviate the negative impact of unfavourable manufacturing countries is imperative for marketing managers.

The results of this study supported *H2*, indicating that consumer product evaluation changes across different evaluation modes. On average, products were judged of higher quality and viewed more favourably in JE than in SE. Significant COO by Evaluation Mode interaction in ANOVA results revealed *H3* was supported. It suggests that the strength of COO effect varies under different evaluation modes. Specifically, The COO effect was stronger when consumers were exposed to JE than when they were exposed to SE. It is possible that customers are generally unable to retrieve a reference target of COO to compare with. Customers therefore have difficulty determining the product quality if COO information is present independently. In contrast, when options are presented simultaneously, consumers are able to directly compare the COO of products. A favourable COO is highlighted when compared with an unfavourable COO. The evaluation of products made in favourable COO therefore shows significant improvement in JE compared to in SE.

We further analyze the effect of evaluation mode on product evaluation under different COO conditions. Figure 2 and Figure 3 reveals that a product made in a favourable country (Taiwan) can be higher rated in JE than in SE. In contrast, a product made in an unfavourable country (China) will receive a higher evaluation in SE mode than in JE mode. Further observations of Figure 2 and Figure 3 show that the difference of product evaluation between in JE and in SE is significantly larger in Taiwan condition than in China condition. In other words, the impact of evaluation mode on product evaluation is stronger for products from favourable countries than those from unfavourable countries. This suggests that marketing activities facilitating advantageous evaluation mode (JE for advanced countries; SE for developing countries) in order to enhance product evaluation are especially effective for products made in advanced countries.

At the same time, empirical evidence of this study revealed that the evaluation mode did not interact with brand to influence consumers' perceived quality and favourability of products. Thus, *H4* was not supported. This could be attributed to consumers' absorption of large amounts of brand information every day through mass media (Holt *et al.*, 2004), and therefore they have already arrived at an opinion for many established brands. Even if there is no reference target available for comparison, customers are still capable of judging the product quality of a brand by retrieving a nature reference. As a result, different evaluation modes did not result in significant variations on brand effect.

Managerial implications

For marketers in a multi-national enterprise, formulating an effective strategy to deal with the potential negative COO effect on consumer product evaluation is a critical issue. The results of this study could help marketers develop more effective marketing campaigns to alleviate the negative impact of COO. In practical terms, the conclusions of this study suggest that marketers should avoid having products made in less developed countries be compared directly with those made in more advanced countries. When displaying a product with an unfavourable COO, marketers should create an environment facilitating separate evaluation mode if possible. For example, for companies that have moved most of their production to developing countries (for example, refrigerators from General Electric), they can set up dedicated counters exhibiting their products in order to prevent comparison with products from

competing brands that made in advanced countries (e.g. some refrigerators from Whirlpool still made in USA). This will help improve consumers' evaluation on quality and favourability of products from developing countries. Conversely, products made in countries with positive image should emphasize their favourable COO characteristics in marketing activities (e.g. electronic products may promote themselves as being 100 percent made in Japan) and proactively provide consumers with targets (similar products with an unfavourable COO) for comparison (e.g. use comparative advertising) in order to enhance consumers' perception of product quality (Maronick, 1995; Okechuku, 1994). For weak brands in advanced countries, a positive COO attribute could serve as a point of differentiation and source of competitive advantage when competing with the strong brands (Agrawal and Kamakura, 1999). For example, a recent survey in US indicates consumers are willing to pay a 19 percent premium for a steak carrying the "Guaranteed USA" label (Umberger *et al.*, 2003). Food brands in US market that manufacturing locally could take this advantage in order to compete with strong brands.

Limitations and future research

Several limitations of the present work should be noted. First, the conclusions of current study may not be generalized to all product categories or purchase situations. This may due to the fact that some countries have acquired strong images in specific product categories (e.g. France in wines; Switzerland in watches) (Han and Terpstra, 1988; Kaynak and Cavusgil, 1983; Roth and Romeo, 1992). In another situation, certain COO labels (e.g. developing nations) are associated with high-risk perception (Hampton, 1977). When evaluating products of safety concerns (e.g. foods or medicines) made in such countries, individuals are likely to rely more on COO information (Alden *et al.*, 1993; Bilkey and Nes, 1982) and avoid products from these countries. Under those circumstances, facilitating certain evaluation mode (joint or separate evaluation) might have less influence in countering the negative impact of COO. Furthermore, in order to have a rigorous experiment design, we controlled many variables (e.g. brand familiarity, product specifications). This might reduce the external validity of the study. Therefore, the findings should be interpreted with caution. Finally, this study deliberately emphasized brand and COO information. In the real world, the effect discovered by this study may not be as accentuated.

Further research is needed to explore the relationships among brand, COO and evaluation mode. Future studies may wish to examine whether other factors (such as consumer knowledge, consumer ethnocentrism) will influence how evaluation mode interact with the brand and COO effects. Additionally, when other information (such as store name, price) and reference points are available, whether these factors influence the COO effect under different evaluation modes also warrants future research.

Notes

1. Since the study was conducted in Taiwan, and the favorable COO used in the experiment is also Taiwan, consumer ethnocentrism might play a role in influencing COO effect. In order to rule out the potential effect of consumer ethnocentrism, a preliminary survey has been conducted. Seventy participants were asked to rate their COO perceptions towards laptop computers made in seven countries, including China, Germany, Japan, Korea, Malaysia, Taiwan, and USA, by using the scale of COO effect modified from Teas and Agarwal (2000).

The level of consumer ethnocentrism of the participants was also measured by using the CETSCALE developed by Shimp and Sharma (1987). The participants were then divided into two groups based on the mean score of CETSCALE. One group is composed of high ethnocentric participants ($N = 32$), and the other included low ethnocentric participants ($N = 38$). A comparison of the ratings on COO perception between these two groups revealed no significant difference for all these seven countries (For China, $F_{1,68} = 0.232$, $p = 0.632$; for Germany, $F_{1,68} = 0.371$, $p = 0.545$; for Japan, $F_{1,68} = 0.00$, $p = 0.985$; for Korea, $F_{1,68} = 0.150$, $p = 0.700$; for Malaysia, $F_{1,68} = 0.00$, $p = 0.996$; for Taiwan, $F_{1,68} = 0.598$, $p = 0.442$; and for USA, $F_{1,68} = 0.453$, $p = 0.503$). Most notably, the results suggested that high ethnocentric customers did not rate laptop computers made in Taiwan more favourably than low ethnocentric customers. Accordingly, the impact of consumer ethnocentrism on COO effect has been found insignificant for Taiwanese customers when evaluating laptop computers.

2. One of the reviewers raised a concern about possible experimenter demand effects since we measure evaluability of brand and COO directly. Therefore, we conducted another test to rule out this possibility. In this test, 40 participants were shown a picture of a laptop computer (without any logo or brand name on it) along with either a brand name ("Sony" or "Asus") or a COO ("Made in Taiwan" or "Made in China"). The evaluability of brand names and COOs were measured by using the following questions: "According to the information presented, could you judge the quality of this laptop computer?" and "Do you have any idea how good this laptop computer is?" These items were modified from Hsee (1996). The results showed that the mean evaluability scores of brand name were 5.16, respectively, and those of COO were 3.97. Specifically, the mean evaluability scores in Sony and Asus conditions were 5.45 and 4.87, and in Taiwan and China conditions were 4.38 and 3.55. This revealed that the evaluability scores of two brand names (Sony and Asus) were both higher than those of two COOs (Taiwan and China), again corroborating that brand name was an easier-to-evaluate attribute than COO for laptop computer consumers.

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Appendix 1. Example of preference reversal

Two dictionaries were interpreted as follows (Table AI):

The Entries attribute was hard to evaluate independently. Without something to compare with, most people would not know how good a dictionary with 10,000 entries (or with 20,000 entries) is. On the other hand, the Defects attribute was relatively easy to evaluate independently even without a direct comparison. According to the evaluability hypothesis, in the joint

	Entries	Defects
Dictionary A	10,000	No
Dictionary B	20,000	Yes

Source: Hsee (1996)

Table AI.

evaluation condition, respondents would recognize that a dictionary B with 20,000 entries was relatively good and dictionary A with only 10,000 entries not as good. In the separate evaluation condition, conversely, the Defects attributes had larger impact, so that most people would find dictionary A more attractive than dictionary B.

Appendix 2. The perceived quality and perceived favourability scales

Perceived quality (Dodds et al., 1991; Erevelles et al., 1999)

- (1) This laptop computer should be of: (very good quality to very poor quality).
- (2) This laptop computer would seem to be durable (strongly agree to strongly disagree).
- (3) The likelihood that this laptop computer would be reliable is (very high to very low).
- (4) The workmanship of this laptop computer would be (very high to very low).

Perceived favourability (Liu, 2001)

- (1) I like this laptop computer (strongly agree to strongly disagree).
- (2) This laptop computer seems great (strongly agree to strongly disagree).
- (3) This laptop computer attracts me (strongly agree to strongly disagree).

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