

# The Effects of Country Image on Quality Perception:

## A Case of Major Appliances in Thailand

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**Abstract**—The purposes of this research were to measure, rank, and compare the effects of country image on quality level of Major Appliances from Japan, South Korea, the United States, Sweden, and Germany. Five hundred fifty three questionnaires were answered by consumers in Bangkok. Statistical instruments such as mean, standard deviation, and One-Way-ANOVA with the significant level at 0.05 were selected to complete the process of data analysis. The results revealed that Thai consumers ranked the highest product quality of country image from Japan, South Korea, the United States, Sweden, and Germany respectively. The test of statistic hypothesis also found that the average quality perception of products from Japan was significantly higher than those of products from any other country. In contrast, the average quality perception of products from Germany was significantly lower than those of products from any other country, except Sweden.

**Keywords**—Country Image, Major Appliances, Quality Perception, Thailand.

### I. Introduction

As the influence of globalization today, the country borders have been blurred and the trade barriers have been lifted off. Products are produced, manufactured, and sold all around the world. New emerging markets make global products available in almost every country. To maintain competitive edge, business must produce their products globally. Since the countries where products are made affect the consumer perceptions and buying decisions, country image becomes an important cue to distinguish the differences of product attributes [1], [2].

On the other hand, quality is also important since it affects a consumer decision making to buy products. The previous study found that the consumer perception of quality was directly influenced by country image. Quality and country image became even more important for the consumers to make a decision to buy when the intrinsic cues are not available and a product looks similar. In the consumer minds, country image came with a promise of product quality [1], [3], [4]. For this reason country image becomes an important issue and is one of the most interesting research topics in international business, marketing, and consumer behavior [5].

In Thailand, the most popular household appliances for Thai consumers are washing machines, air-conditioners, and refrigerators which referred as Major Appliances. These top three Major Appliances are seriously considered and compared when consumers make a decision to buy because of the relatively expensive prices. The leading brands on the Thai market are from Japan (Mitsubishi, Toshiba, Sharp, Panasonic, and Hitachi), South Korea (Samsung and LG), The United States (Whirlpool and GE), Sweden (Electrolux) and Germany (Siemens). The purposes of this research were to measure, rank, and compare the quality level of Major Appliances from Japan, South Korea, the United States, Sweden, and Germany.

## II. Literature Review

### A. Country Image

Country image can refer to an association of a more broaden term, country of origin. Due to the globalization in economy today, a product may be assembled with parts that made in many different countries. Thus, using the term of country of origin may confuse the consumers today since they cannot really identify where a product really made from. For this reason, later the researchers developed the more specific terms known as country of design, country of manufacturer, country of brand, including country image. According to an early pioneer research of Nagashima (1970), country image is the picture, the reputation, and the stereotype that consumers attach to products of a specific country [6]. Today in the field of international business literatures, country image was similar to brand image and defined as consumers' general perceptions of quality for products made in a given country [6], [7], [8]. Furthermore, country image was one of the most valuable assets of a country since a famous country image could generate more sale, profit, customer loyalty, and other profitable aspects to the countries than a less famous country image [9].

### B. Perceived Quality

Quality could help business to keep their long-term profit by creating a purchasing loyalty [10].

Since this research was to measure the perceived quality of the Major Appliances of those who use them, the user-based definition of quality based on Garvin's quality model was

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applied. The user-based of Garvin's model was composed of 8 quality dimensions which were (1) Performance, the primary basic functions of Major Appliances which are cooling ability of refrigerators and air-conditioners, and cleaning ability of washing machines; (2) Features, supplements of basic functions such as deodorizing system in refrigerators, energy saving in air-conditioners, and noise-reduction system in washing machines; (3) Reliability, the probability of failure-free performance over a specified period of time; (4) Conformance, the degree to which Major Appliances' performance characteristics meet design specifications; (5) Durability, a measure of Major Appliances' life span; (6) Brand image, a reputation of brand; (7) Aesthetics, the Major Appliances' looks and feels; and (8) Serviceability, the ease, speed, courtesy, and competence of repair [11].

### C. The Effects of Country Image on Perceived Quality

The perceived quality can be affected by two types of cues: intrinsic cues and external cues. Intrinsic cues are the cues that can be seen, sensed, or smell directly such as price, shape, color, and taste. Extrinsic cues are subjective matter which depends on consumer self-experience, preference, and perception such as advertising, product warranty, and country image [12], [13].

Wright (1975) and Wall et al. (1991) found that the perception of country image affected perceived quality during making a decision to buy a product because consumers usually used an easy way to judge a product quality based on extrinsic cue such as country image rather than product attribute information [14], [15]. Dawar and Parker (1994) confirmed that the country image was the most important cue for the consumers and the relationship between country image and perceived quality existed in every culture [16]. Furthermore, Belkey & Nes (1982) found that country image had an important influence on consumers' evaluation of foreign products category like Major Appliances such as refrigerators, air-conditioners, and washing machine [1].

### D. Hypotheses

The hypotheses of this research were the followings:

- H<sub>0</sub> Major Appliances from different country image do not have different perceived product quality.
- H<sub>1</sub> Major Appliances from different country image have different perceived product quality.

## III. Methodology

### A. Research Design

The population of this research was the consumers in Bangkok which is about 6 million people. From the Yamane sampling table at 95 % confidential level with  $\pm 5$  % error, the sampling size is 400 units [17]. The data was collected by purposive sampling. The 600 questionnaires were distributed to gather the data and the total 553 questionnaires were completed. The respondents were informed first that what Major Appliances were from which countries, and then respondents were asked to fill out the questionnaires.

### B. Survey Instrument

The questionnaire had 0.825 reliability of Cronbach's alpha. Also, the questionnaire had been approved by experts in the related field before using it as the means to collect the data. The questionnaire obtained information about the attitude toward product quality of Major Appliances from Japan, South Korea, the United States, Sweden, and Germany in the form of Likert's scale. All the rated questions were measured on a five-point scale by given 1 as the most disagreement and 5 as the most agreement.

### C. Data Analysis

The attitudes toward product quality level from 5 different countries were summarized as mean and standard deviation. Then the perceived quality levels from each country image would be ranked. Finally, the data was analyzed to compare the differences in perceived quality of Major Appliances from 5 countries by using One-Way-ANOVA and the Scheffe's method for pair-wise differences.

## IV. Results

### A. The Ranking of Country Image by Quality

The quality levels of Major Appliances from the total 553 qualified respondent, the ranking of country image in order of having highest product quality in average was shown in table 1.

TABLE I  
THE RANKING OF COUNTRY IMAGE BY PRODUCT QUALITY

Rank	Country	Average Quality	N
1	Japan	3.97	114
2	South Korea	3.72	116
3	U.S.	3.67	111
4	Sweden	3.61	104
5	Germany	3.45	108

From table 1, Thai consumers ranked the highest product quality of country image from Japan, South Korea, the United States, Sweden, and Germany respectively. When product quality was analyzed in details by each quality dimension, the results were shown in table 2.

TABLE II  
THE PRODUCT QUALITY OF MAJOR APPLIANCES  
BY EACH QUALITY DIMENSION

Country	Japan		South Korea		U.S.		Sweden		Germany	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Quality Dimensions										
Performance	3.99	0.67	3.71	0.82	3.66	0.65	3.62	0.71	3.47	0.60
Features	3.96	0.66	3.78	0.87	3.61	0.63	3.52	0.62	3.37	0.73
Reliability	3.99	0.62	3.73	0.86	3.68	0.71	3.77	0.67	3.50	0.66
Conformance	3.92	0.69	3.66	0.78	3.72	0.78	3.63	0.70	3.51	0.70
Durability	3.99	0.67	3.53	0.93	3.79	0.78	3.64	0.79	3.65	0.75
Brand	4.25	0.71	4.03	0.86	3.62	0.92	3.65	0.76	3.32	0.95
Aesthetics	3.86	0.76	3.73	0.82	3.55	0.75	3.60	0.81	3.39	0.75
Services	3.82	0.72	3.59	0.87	3.69	0.71	3.42	0.76	3.36	0.70
Average	3.97	0.46	3.72	0.65	3.67	0.50	3.61	0.50	3.45	0.47

The perceived quality levels of Major Appliances from Japan were considered to be relatively high in all quality dimensions. The perceived quality levels of Major Appliances from South Korea, the United States, and Sweden were considered to be well above average while the perceived quality levels of Major Appliances from Germany were considered to be slightly above average in all quality dimensions.

Also the quality level of products from Japan was strongest in brand image dimension, but relatively weakest in serviceability dimension. The quality level of products from South Korea was strongest in brand image dimension as well, but relatively weakest in durability dimension. The quality level of products from the United States was strongest in durability dimension, but weakest in aesthetic dimension. The quality level of products from Sweden was relatively strongest in reliability dimension, but weakest in serviceability dimension. Finally, the quality level of products from Germany was relatively strongest in durability dimension, but weakest in brand image dimension.

## B. Comparative Study of Quality Perception

The comparison of average quality differences by using One Way ANOVA first and later applying Scheffe's method for pair-wise difference is illustrated in table 3.

TABLE III  
THE PAIR-WISE DIFFERENCES IN AVERAGE QUALITY PERCEPTION

Quality in Average	Japan	S.Korea	U.S.	Sweden	Germany
		3.9726	3.7198	3.6667	3.6058
Japan	3.9726	0.0000			
South Korea	3.7198	0.2528*	0.0000		
U.S.	3.6667	0.3059*	0.0532	0.0000	
Sweden	3.6058	0.3668*	0.1141	0.0609	0.0000
Germany	3.4468	0.5258*	0.2731*	0.2199*	0.1590

\* Significant at 0.05 level

From table 3, the results revealed that the average quality from Japan was significantly higher than those from South Korea, the United States, Sweden, and Germany. But product quality perception in average quality from South Korea, the United States, and Sweden were not significantly different. And the product quality perception in average quality from Germany was significantly lower than those from Japan, South Korea, the United States, and Sweden.

When the quality differences were break down into each dimension, the pair-wise differences were found as the followings:

1) For performance dimension, the product quality from Japan was significantly higher than those from the United States, Sweden, and Germany. But the product quality from South Korea was not significantly different than those from Japan, the United States, Sweden, and Germany.

2) For features dimension, the product quality from Japan was significantly higher than those from the United States, Sweden, and Germany. Also the product quality from South Korea was significantly higher than those from Germany. But the product quality from South Korea was not significantly different than those from Japan, the United States, and Sweden.

3) For reliability dimension, the product quality from Japan was significantly higher than those from the United States and Germany. But the product quality from South Korea was not significantly different than those from Japan, the United States, Sweden, and Germany. In addition, the product quality from Sweden was not significantly different than those from Japan, South Korea the United States, and Germany either.

4) For conformance dimension, the product quality from Japan was significantly higher only than those from Germany.

5) For durability dimension, the product quality from Japan was significantly higher than those from South Korea, Sweden, and Germany. But product quality from the United States was not significantly different than those from Japan, South Korea, Sweden, and Germany.

6) For brand image dimension, the product quality from Japan was significantly higher than those from the United States, Sweden, and Germany. But the product quality from the United States was not significantly different than those from the United States, Sweden, and Germany.

7) For aesthetics dimension, the product quality from Germany was significantly lower than those from the Japan and South Korea. But the product quality from the United States was not significantly different than those from the Japan, South Korea, Sweden, and Germany.

8) For serviceability dimension, the product quality from Japan was significantly higher than those from the Sweden and Germany. But the product quality from the South Korea was not significantly different than those from the Japan, the United States, Sweden, and Germany.

## v. Conclusion

This study found that the ranking of country image by product quality of Major Appliances was Japan, South Korea, the United States, Sweden, and Germany respectively. This ranking was different from the prior research conducted in other developing country by Maznah [18]. This implied that the consumers in different countries had their own unique perceptions of quality ranking which could be the result from social or political bias in a specific country [19]. The quality ranking could also vary by different product category. Hence, the businesses must always explore the quality perception over time and be aware of consumers' perception to compete with competitors globally.

This research also found that when the quality perception of a particular country image was higher, it seemed to be higher in every quality dimension. This perhaps suggested that the quality perception was a general perception. If consumers were satisfied with a product quality, they would likely to have the positive attitude well toward all quality dimensions in approximately equal level. Also by the market share in Thailand, all Major Appliances were from the developed countries; Japan, South Korea, the United States, Sweden, and Germany. This could reflect that the consumers in developing countries preferred to buy products from developed countries [20].

Although this study intentionally compared the quality differences of the five selected country images, it could also exactly locate the weakness of each country image in specific quality dimension. For instance, the quality perception of Major Appliances from Japan, even though its average quality was very high, was relatively lowest in serviceability dimension. The quality perception of studied products from South Korea was relatively lowest in durability dimension. The quality perception of studied products from the United

States was relatively lowest in aesthetics dimension. The quality perception of studied products from Sweden was relatively lowest in serviceability dimension. And the quality perception of studied products from Germany was relatively lowest in brand image dimension. The pinpoints of quality weakness dimension of these country images could be a great opportunity for those businesses that would like to find the room of improvements and for the competitors that would like formulate a strategic plan to compete in global markets today.

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