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The Effects of the Country of Origin on the Evaluation of Products: A State of the Art Review and Research Propositions

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Abstract

The research on the effect of the country of origin on the evaluation of products is reviewed and discussed in this article. The convergence of the results of many studies on the subject confirms the existence of an overall significant effect. More specifically, perceived quality of the product is relatively more affected by the country of origin than the intention to purchase. In spite of the wide variety of empirical context covered in the research, the following six moderating variables can be identified : 1) Prestige of the retail outlet, 2) Price level, 3) Level of warranty, reimbursement, after-sale service, 4) Prestige of the brand name, 5) Degree of product familiarity, and 6) Country of assembly. Both measures of the country image and perceived quality of the product are discussed and it is proposed that they should be validated as two distinct multi-dimensional constructs using confirmatory factorial analysis and a sample of Japanese businesspeople. A parsimonious model is presented and discussed with proposed structural relationships among the six following constructs : 1) Country image, 2) Perceived quality of the product, 3) Commercial environment, 4) The perceived value of the product, 5) Conditions of the transaction, and 6) Purchase intention.

Key words : Country of origin, review of studies, country image, perceived quality of products, structural model proposition

抄　録

本稿では，原産国が製品の評価に及ぼす効果に関する研究が概観され，検討されている。この主題についての多くの研究の成果を集約すれば，全般的に有意義な効果が存在することを確証できる。とりわけ製品の知覚された品質は，購買意図よりも原産国の影響を受けやすい。研究の中では種々さまざまな実証的な情況が扱われているが，以下の六つの媒介変数を確認することができる。1）小売店の信望，2）価格水準，3）保証，払い戻し，アフターサービスの水準，4）ブランドネームの信望，5）製品の親近度，6）組み立て国。国イメージおよび製品の知覚された品質についての二つの測度を検討したうえで，確認的因子分析法と日本のビジネスマンの標本を用いて，それらを二つの明確な多次元構成概念として妥当化すべきことを提唱している。提唱された以下の六つの構成概念の間の構造的な関係に関して極度に単純化したモデルを提示して検討がなされている。1）国イメージ，2）製品の知覚された品質，3）商業的環境，4）製品の知覚された価値，5）取引条件，6）購買意図。

キーワード：原産国，研究の概観，国イメージ，製品の知覚された品質，構造モデルの提唱

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1. Introduction

For over thirty years, researchers on all five continents have studied the relationship between the perception of a country and the perception of its products. However, the nature of linkages between country perception and product perception have been the subject of controversies. The objective of this article is to conduct a state of the art review on country of origin effects and to suggest new research avenues.

2. The effect of the country of origin on the evaluation of products

Measures of the effect of country of origin have generally included the two following dependent variables: perceived quality and buying intention. Respondents give their evaluation of a product with respect to these two variables very often using a semantic differential scale. Since these two variables are conceptually distinct (Fishbein and Ajzen, 1975), they should be analyzed from two different viewpoints. Since, perceptions are more primitive than intentions, perceptions precede and influence intentions (Belk, 1985) even though constructs such as satisfaction (see figure 1) may also mediate this relation (Cronin and Taylor, 1992). Further, this distinction was used in previous research conducted by Johansson (1989) and Roth and Romeo (1992).

Figure 1 : Structural Model proposed by Cronin and Taylor (1992)

The existence of a significant impact of country of origin on the evaluation of products is still questioned despite over thirty years of research on the subject (Schooler, 1965), which has lead to divergent results. This situation can be attributed to numerous differences in the studies that were conducted on the subject. For example, differences on type and number of attributes, sampling procedures, types of products, stimuli used, etc. can be observed. The objective of the first part of this article is to clarify the existence of the impact of a country of origin effect on the evaluation of products and to expose the methodological factors that need to be addressed in order to conduct adequate research in this area.

2.1 Methodological factors influencing the effect of the country of origin

In order to reconcile conflicting results of previous studies, factors that are likely to influence the effect of country of origin have been identified by Peterson and Jolibert (1995). A literature review and the criteria of: 1) Availability of the information, 2) Conflicting results and 3) Anticipated methodological differences allowed the authors to select fifteen factors likely to influence the effect of the country of origin. The first column of Table 1 gives a listing of the fifteen variables proposed by Peterson and Jolibert (1995) and indicates those that were used in a more limited study by Liefeld (1993).

With the factors proposed by Liefeld (1993) and Peterson and Jolibert (1995) in mind, we have looked for their anticipated effect in the literature on the effect of the country of origin. As far as the research design (within vs. between-subject) is concerned, Sloan and Ostrom (1974); Anderson (1982) and Han and Terpstra (1988), have suggested that a within-subject design would increase the effect size due to a demand effect. "For example, Japanese branded/US made products might be rated more favorable than US branded/US made, not because the subject felt the difference, but because the difference in information caused the subject to think that a corresponding difference in response was expected" (Han and Terpstra, 1988, 239).

Concerning the type of respondent, samples comprised of student respondents are judged non representative of the general population. Several authors (Bilkey and Nes, 1982 ; Ozsomer and Cavusgil, 1991) suggest that student samples should not be used, especially when applied rather than theoretical research is involved (Calder, Phillips and Tybout,

1981).

Many authors have suggested that a single cue design, as opposed to a design with multiple cues, tends to produce more statistically significant effects of the country of origin (Bilkey and Nes, 1982 ; Ozsomer and Cavusgil, 1991. "A single cue study is bound to yield significant cue effect that may or may not exist in the real world" (Bilkey and Nes, 1982, 93).

The effect of sample size was introduced by Peterson and Jolibert (1995) in order to ascertain if large samples (260 or more respondents) would result in larger statistical effect (effect size) than smaller samples (less than 260). Concerning the stimulus context, the written description of the product as opposed to its physical presence has been criticized by many researchers as tending to artificially increase the effect size (Schooler, 1971 ; Smead, Wilcox and Wilkes, 1981 ; Bilkey and Nes, 1982). "One cannot be sure what respondents have in mind when such evaluations (intangible descriptions) are given" (Bilkey and Nes, 1982, 93).

With respect to the country of stimulus, a nationality bias in favor of the country of the respondent is well documented (Nagashima, 1972 and 1977 ; Baumgartner and Jolibert, 1977 ; Darling and Kraft, 1977 ; Cattin, Jolibert and Lohnes, 1982 ; Usunier, 1992). "... the French consumer has a very strong preference for domestic products" (Baumgartner and Jolibert, 1977). However, some studies have indicated that this bias was absent in some countries (Nagashima, 1970 and 1977 for Japanese businessmen ; Bannister and Saunders, 1978 for English consumers ; Heslop and Wall, 1985 for Canadian consumers) and especially in less industrialized countries where imported products have more prestige than domestic products (Papadopoulos, Heslop and Beracs, 1990).

Regarding respondents' nationality, Parameswaran and Yaprak (1987) have noted that too many consumer behavior generalizations are based on US samples and they state that: "The same scales may have different reliabilities in different cultures, and the same scale may exhibit different reliabilities when used by the same individual in evaluating products from different culture" (Paramewaran and Yaprak, 1987, 45). A measure of the variation of the effect of country of origin for US vs. non-US subjects is desirable.

With respect to product stimulus, the type of product involved (durables, non-durables, consumer, industrial) may have an impact on the effect of country of origin (Kaynak and Cavusgil, 1983 ; Eroglu and Malcheit, 1988 ; Roth and Romeo, 1992). "While consumers may prefer automobiles from Japan, they would rather buy crystal from Ireland and leather shoes from Italy" (Roth and Romeo, 1992, 493).

Studies on the effect of country of origin can be classified according to the three main

Table 1 : Methodological Factors and Mean Effect Size Found by Peterson and Jolibert (1995)

Methodological Factors	Quality/Reliability Perception		Intention to Purchase	
	Average Effect Size %	Probability	Average Effect Size %	Probability
1. Research Design*		.05		.55
Within-Subject	.30		.19	
Between-Subject	.26		.15	
2. Type of Respondents*		.44		.00
Students	.28		.05	
Consumers	.30		.28	
Businesspeople	.32		.28	
3. Study Cues*		.00		.03
Single cue	.30		.19	
Multiple cues	.16		.03	
4. Sample Size		.00		.00
Less than 260	.28		.16	
260 or more	.32		.27	
5. Stimulus Context*		.00		.02
Paper and pencil	.32		.19	
Stimulus present	.14		.02	
6. Country of Stimulus		.00		.72
Includes respondents' country	.34		.20	
Does not include respondents' country	.28		.19	
7. Source of Respondents		.00		—
One country	.30		.19	
More than one country	.17		—	
8. Number of Countries Studied		.96		.00
Ten or less	.30		.14	
More than ten	.30		.28	
9. Respondent Nationality		.24		.05
US	.31		.21	
Non US	.29		.17	
10. Stimulus Product Level		.86		.17
General	.29		.22	
Category	.30		.18	
11. Stimulus Product Type		.53		.00
Industrial	.28		.32	
Consumer	.30		.14	
Both/mixed	.28		.22	
12. Stimulus Product Kind		.55		.00
Durable	.30		.20	
Nondurable	.29		.07	
Not defined/mixed	.29		.22	
13. Mode of Data Collection		.00		.00
Self-administered	.32		.18	
Other-administered	.17		.47	
14. Year of Study		.00		.00
Before 1980	.27		.35	
1980-1989	.29		.29	
After 1990	.45		.09	
15. Study Context		.20		.00
Laboratory	.28		.15	
Field	.30		.26	

(*) Factors included in Liefeld (1993) study

periods: 1) Before 1980, when research designs were questionable ; 2) From 1980 to 1990, when the effect of country of origin was reevaluated with stronger research designs and 3) After 1990, some structural modeling is attempted to identify its causes and effects due to more researchers being convinced of the real effect of country of origin.

2.2 Relative importance of the methodological factors

The research results of Peterson and Jolibert (1995) are presented in Table 1. One can see that the distinction between two types of dependent variables (perceived quality/reliability and purchase intention) was important. In addition, ω^2 (omega-squared) a measure of relative importance (similar to the percentage of variance explained in regression) of the country of origin was provided. The relative importance of the effect of the country of origin was found to vary between .03 to .47 and to be on average of .30 for quality/reliability and .19 for purchase intentions. The effect of country of origin on product evaluation is therefore confirmed and appears to be more important for perceived quality than for purchase intention.

A more modest meta-analysis conducted by Liefeld (1993) allows us to partially evaluate the degree of similarity with the more comprehensive results of Peterson and Jolibert (1995). The sample frame used by Liefeld consisted of dissertations, proceedings papers and North American journals, whereas Peterson and Jolibert consulted major European and North American journals, proceedings papers, book chapters, dissertations, unpublished manuscripts in addition to databases such as: ABI Inform, APA Abstracts, NEXIS. The final sample analyzed by Liefeld consisted of only 24 studies compared to 200 retained by

Table 2 : Comparison of two meta-analyses for common methodological factors and for quality perception

Methodological Factors	Liefeld (1993)		Peterson and Jolibert (1995)	
	Average Effect Size	Probability	Average Effect Size	Probability
Research Design		.00		.05
Within-Subject	.428		.30	
Between-Subject	.198		.26	
Type of Respondents		.88		.44
Students	.214		.28	
Consumers	.192		.30	
Study Cues		.69		.00
Single cue	.218		.30	
Multiple cues	.190		.16	
Stimulus Context		.83		.00
Paper and pencil	.206		.32	
Stimulus present	.196		.14	

Peterson and Jolibert. Further, the Liefeld sample was limited to a measure of quality perception only.

Table 2 reveals that both meta-analyses are similar regarding the absence of significant difference between students and consumers with respect to the impact of the country of origin on quality perception of products. With respect to study cues and stimulus context, the effect sizes of the Liefeld study are in the same direction as those of Peterson and Jolibert. The smaller sample may be the underlying reason of the insignificant results (.69 and .83) obtained by Liefeld. Overall, both research results are consistent and indicate that within-subject research designs, single cue studies and using an intangible (paper and pencil) description of the stimulus tend to increase the effect of country of origin on perceived quality.

2.3 Summary

The main conclusions are that the effect of country of origin is significant and that one should differentiate between quality/reliability perception and intention to purchase. In addition, a stronger effect of country of origin is observed for quality perception than for intention to purchase. One must be aware of the influence of the following methodological factors:

1) Within-subject design tends to artificially increase the relative effect of country of origin.
2) Regarding the measure of quality perception, student samples are not different than consumer samples or businesspeople samples. However, student samples differ when intention to purchase is measured. The importance of price in particular and/or other attributes may be more important for students when buying intention is involved.
3) Single cue study tends to artificially increase the relative effect of country of origin. In addition, this approach does not reflect the real consumption situation.
4) Using a written paper and pencil test tends to artificially increase the relative effect of country of origin. The attention of the respondent is artificially focused on one attribute which may not have been taken into consideration. The presence of the stimulus allows the researcher to put the subject in a situation closer to reality.
5) Including the respondents' country may increase the relative effect of country of origin. However, from a competitive viewpoint, including the country of the respondent may be useful to measure its perceptual distance relative to other countries of interest.
6) Including more than 10 countries in the study appears to increase the relative effect of

country of origin (for intention to purchase) by drawing the respondents' attention to the subject.

7) The relative effect of country of origin appears stronger for intention to purchase when industrial rather than consumer products are involved. The same situation prevails when durable rather than non-durable products are involved.

8) The self-administered or other-administered method of data collection appears to have an impact on the relative importance of the country of origin. Hence, the effect of mode of data collection should be taken into account in further studies.

9) The choice of a field rather than a laboratory study seems to increase the relative importance of country of origin for intention to purchase.

With the last two points in mind, further studies could follow the multi-method research design proposed in Table 3.

Table 3 : A multi-method approach to country of origin studies

		Mode of data collection	
		Self-administered	Other-administered
Study context	Laboratory	Method 1	Method 2
	Field	Method 3	Method 4

3. Type of studies on the country of origin effect

Studies conducted over the last thirty years have covered a very wide variety of subjects. The impact of country of origin has been evaluated for video cassette recorders (Ahmed and d'Astous, 1995), computers (Hong and Wyer, 1989), cars (Johansson and Nebenzahl, 1986), shirts (Heslop, Liefeld and Wall, 1987), socks (Schellinck, 1989), coffee (Obermiller and Spangenberg, 1988), industrial machines (White and Cundiff, 1978), etc. .

d'Astous and Ahmed (1992) used three products (T-shirt, video cassette recorder and automobile) to evaluate the effect of the level of product involvement. They concluded that the higher the level of product involvement, the stronger the effect of product attributes and of the country of origin.

More specifically, the Wall, Liefeld and Heslop (1991) study, among others, shows that the following three dimensions tend to increase the impact of country of origin: The technical complexity of the product (technological risk), the social significance of the product to other people (social risk) and the price level (financial risk). The general positive effect of each of the three dimensions is represented in Figure 2.

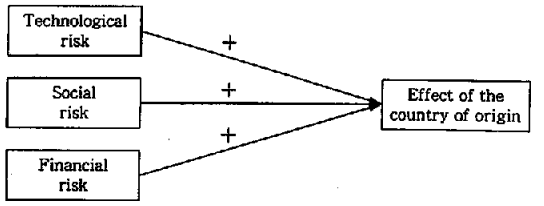

Figure 2 : Relationships between three types of risk and the effect of country of origin

4. Moderating variables in country of origin studies

The effect of country of origin on the evaluation of products is only one among many pieces of information taken into account by consumers. In addition, the effect of country of origin is more important on perceived quality than on purchase intention. It is therefore likely that some moderating variables may be involved during the evaluation process of the consumer.

In order to be closer to the real market situation, many studies have used a multi-attribute approach. However, with the rapidly increasing complexity of experimental designs, most studies have limited the number of attributes to four. In general, a product is analyzed along two kinds of variables: 1) Intrinsic variables (e. g.: taste, design, performance, etc.) which are an integral part of the product, 2) Extrinsic variables (e. g.: price, brand, warranty, country of origin) which are potential sources of information to the consumer before consumption. In the following discussion, we limit our study to extrinsic variables and their interrelationship with the country of origin.

A literature review allowed us to list the following intrinsic variables:

1) Prestige of retail outlet

In order to reduce risk, consumers tend to favor a more prestigious retail outlet when the effect of country of origin is negative. "Consumer reduce risk by purchasing products from a store with a quality reputation" (Thorelli, Lim and Ye, 1989 ; p.37). The more prestigious the outlet, the lower the impact of the country of origin (d'Astous and Ahmed, 1992). The type of retail outlet appears to have a stronger impact on the quality perception than on the buying intention. Thorelli et al. (1989) did not find any significant effect of the type of retail outlet on the overall attitude and buying intentions. The impact of the type of retail outlet on the quality perception measured with a nine-point bipolar scale (very bad buy/

very good buy), was confirmed by Ahmed and d'Astous (1992).

2) Price level and associated financial risk

A less favorable country of origin results in a higher buying risk for the consumer, therefore a lower financial risk is tolerated (Johansson and Nebenzahl, 1986). This is confirmed by the study of Cordell (1991) who found that aversion to goods produced in less developed countries was higher for a color television set at about $300 than for a telephone at $75. Ahmed, d'Astous and Zouiten (1993) found also a significant interaction between price and country of origin but not between price and brand. "There is a significant interaction between country-of-origin and price... there is some indication that for a poor image country, price concessions are needed to sell a product" (p.204). The relationship between price and country of origin has been the subject of some investigations to find the necessary price concession needed for a specific change of country of origin (Johansson and Nebenzahl, 1986 ; Nebenzahl and Jaffe, 1993).

3) Level of warranty, reimbursement, after-sale service

The higher risk of buying associated with a less favorable country of origin can be offset by additional warranties of satisfaction. Schooler, Wildt and Jones (1987) have found that a warranty was influential when choosing between a domestic or an imported product. A research study conducted by Thorelli, Lim and Ye (1989) indicated that a warranty had a significant effect on overall attitude, quality perception and buying intention. Ahmed and d'Astous (1995) concluded that offering a strong warranty to offset a negative effect of the country of origin was a good marketing strategy especially for consumer electronics and video cassette recorders in particular.

4) Level of brand name prestige and reputation

A negative country of origin can be offset by a prestigious brand name. A product by Sony made in Hong Kong is still a Sony even though its image is somewhat lowered (Tse and Lee, 1989 ; Ahmed, d'Astous and Zouiten, 1993 ; Ahmed and d'Astous, 1995). However, even if the brand name may offset the negative effect of the country of origin, the consumer is expecting a lower price. Hence, using a prestigious brand name may offset the negative image of the country of origin as far as the product evaluation is concerned but not in terms of price expectations. Figure 3 shows the moderating role played by the brand name only when the product evaluation is concerned, not when the price expectation is involved.

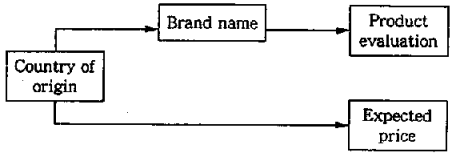

Figure 3 : The moderating role played by the brand name

5) Degree of product familiarity (e. g.: past consumption)

The impact of the country of origin appears to be influenced by the degree of familiarity of the respondent with the product. Parameswaran and Yaprak (1987) have identified that the effect of the country of origin is higher for products that are less available on the market. The less the product is known, the higher the effect of the country of origin.

Han (1989) tested the two structural equation models shown in Figure 4 and 5. Country image (C1) was measured using the evaluation of products from a specific country (e. g.: Japanese television sets). Brand attitude (ATT) was measured using the evaluation of specific brands (e. g.: Panasonic television sets). Both measures were collected from a sample of 116 respondents, using a 7-point semantic (good-bad) differential scale.

Beliefs (Bi) of respondents were measured on five attributes resulting from a factorial analysis conducted by Han and Terpstra (1988) of the original list of items developed by Nagashima (1970). The five attributes were: 1) Technically advanced, 2) Prestigious, 3) Workmanship, 4) Price and 5) Serviceability. Each of these five attributes were treated as one latent variable in the estimation of the measurement model.

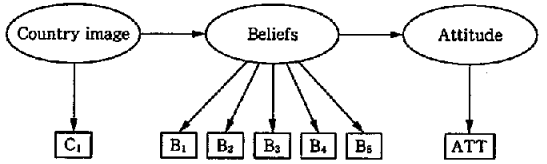

Figure 4 : Halo model (low product familiarity)

Han (1989) succeeded to validate both models, showing that when the product is less well known by the consumer, he or she is not in a position to conduct an "objective" evaluation. In this case, the "halo" model in Figure 4 applies and the country of origin is used as a substitute variable underlying the evaluation of the five attributes. When the consumer is

more familiar with the product, the model in Figure 5 fits the data and the country of origin plays the role of a summary variable allowing him or her to simplify the buying decision process. In this case, the country of origin is the synthesis of the prior "objective" evaluation of the attributes.

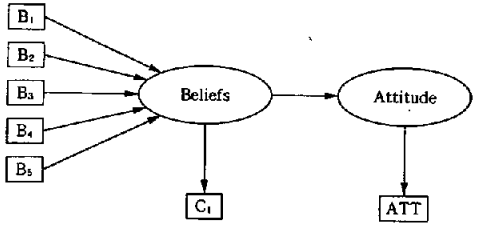

Figure 5 : Synthesis model (high product familiarity)

6) Country of assembly, from less developed countries to industrialized countries

With the globalization of trade, products may be designed in one country, partly manufactured in a second country and assembled in a third country. Therefore, the construct of country of assembly is distinct from the country of origin. For example, Volkswagen assembles German cars in Mexico and Ikea states that its furniture are designed in Sweden and are manufactured in Thailand. A study by Khanna (1986) reported that Indian consumers evaluated differently television sets with tubes manufactured in Germany rather than South Korea, even though both were assembled in India.

The percentage of added value required to be legally able to use the "made in ..." label varies according to regulations in different countries. The construct of country of assembly is therefore difficult to use in research studies. Studies have shown that the country of assembly has a significant effect on the perceived quality and purchase value of products (Ahmed, d'Astous and Mathieu, 1993 ; d'Astous, Ahmed and Wang, 1995). The negative impact of the country of origin may be offset by a more prestigious country of assembly and similarly, a positive country of origin may be damaged by a less prestigious country of assembly.

Overall, an increase (or a decrease in the case of the price level) in any one of the above listed variables tends to reduce the impact of the country of origin. Table 4 summarizes the anticipated direction of the moderating impact of those six variables on the effect of an unfavorable country of origin of the product.

Table 4 : Anticipated moderating impact of six extrinsic variables on the effect of an unfavorable country of origin

Extrinsic variable	Unfavorable country of origin
1) High prestige of retail outlet	—
2) High price level	+
3) High level of warranty	—
4) High level of brand name prestige	—
5) High degree of product familiarity	—
6) Favorable country of assembly	—

5. Measure of the image of the country of origin

In spite of convergent research results confirming the significant effect of the country of origin on the evaluation of products, the measure of the country image is at best an approximation. In order to simplify the respondent's task, some researchers have used only one bipolar scale to measure the overall country image. A uni-dimensional measure is obviously incomplete to capture a multi-dimensional construct.

In his study on the dimensions of country image, Gaedeke (1973) concluded that domestic products were not always perceived to be better and that products from industrialized countries tended to be more favorably evaluated than products from developing countries. This conclusion is consistent with the study of Schooler (1971) who found a positive relationship between the degree of a country's level of development and the evaluation of its products.

Crawford and Lamb (1981) introduced two variables: the degree of economic development and the degree of political freedom as potential variables influencing the decision to buy imported products. "The results do indicate clearly that industrial buyers' willingness to buy foreign products is significantly influenced not only by the individual country, but also by the existing levels of economic development and political freedom" (p.30-31). Later, Crawford (1985) tested the differences of perception of industrial buyers in the United States as regards eight Latin American countries. He found that political stability and degree of freedom had a significant impact in the industrial procurement decision. Finally, Khanna (1986) using a sample of 93 managers from four Asian countries (Thailand, Singapore, the Philippines and Japan), confirmed the influence of the level of economic development of a country on the evaluation of its products.

Taking into account all studies conducted between 1971 and 1989, the four following

dimensions have been considered: the level of economic development, the political stability, the degree of freedom and the degree of industrial development. To address the need of clarifying the measure of country image, Martin and Eroglu (1993) developed a scale adapted to a multi-dimensional construct. They originally generated a series of 29 items and tested the scale for two countries (West Germany and India) using a sample of students. A factorial analysis allowed them to reduce the scale to the three main dimensions shown in Table 5.

Table 5 : Structure of the scale proposed to measure country image

Factor/item description	Item-total correlation
First factor : The political dimension	
Democratic vs. dictatorial system	.713
Capitalist vs. communist system	.612
Civilian vs. military government	.631
Pro-Western vs. pro-Communist	.708
Free market vs. centrally planned system	.573
Second factor : The economic dimension	
High vs. low standard of living	.535
Stable vs. unstable economic environment	.443
Quality of products	.359
Existence of a welfare system	.278
Level of labor costs	.834
Third factor : The technological dimension	
Level of industrialization	.429
Level of technological research	.247
Level of literacy	.381
Mass produced vs. hand-crafted products	.285
Cronbach alpha for the whole scale	.925

The resulting scale appears to be reliable and its dimensions are consistent with previous research. However, it should be tested with a non-student population. As noted in paragraph 2.2 of this article, the impact of the country of origin on purchase intention is different for student respondents rather than for consumers or businesspeople. It is therefore possible, that consumers or businesspeople would not use the same dimensions as students when evaluating the image of a country.

The review of research on the image of the country of origin clearly shows that the construct is multi-dimensional and that a reliable and valid scale needs to be used with the appropriate population in mind when conducting research on the effect of the country of origin on products. A confirmatory factorial analysis approach could be used with the three latent variables and their associated indicator variables shown in Table 5. Bipolar scales

are appropriate, and the indicators: "Pro-Western vs. pro-Communist" and "Free market vs. centrally planned system" may be updated or removed when measuring countries other than China and Cuba.

6. Quality of products

A mentioned above, all extrinsic variables do have an effect on the perception of the quality of products. As an extrinsic variable, the country of origin also has an impact on perceived product quality. The meaning of quality is however left unclear and the objective of the following paragraph is to examine various measures of product quality.

At the end of the sixties, Nagashima (1970, 1977) developed a popular measure used for research on the country of origin. The twenty semantic differential scales shown in Table 6 were proposed and grouped a priori under five dimensions: 1) Price and value, 2) Service and engineering, 3) Advertising and reputation, 4) Design and style and 5) Consumers' profile.

Table 6 : The Nagashima scale of perceived product quality

Dimensions	Bipolar adjectives (7-point scale)
Price and value	1. Inexpensive vs. expensive 2. Reasonably priced vs. unreasonably priced 3. Reliable vs. unreliable 4. Luxury items vs. necessary items 5. Exclusive vs. common 6. Heavy industry product vs. light manufacture product
Service and engineering	1. Careful and meticulous workmanship vs. not so careful and meticulous workmanship 2. Technically advanced vs. technically backward 3. Mass produced vs. hand made 4. World wide distribution vs. mostly domestic distribution 5. Inventive vs. imitative
Advertising and reputation	1. Pride of ownership vs. not much pride of ownership 2. Much advertising vs. little advertising 3. Recognizable brand name vs. unrecognizable brand name
Design and style	1. Large choice of size and model vs. limited choice of size and model 2. More concerned with outward appearance vs. more concerned with performance 3. Clever use of color vs. not clever use of color
Consumers' profile	1. More for young people vs. more for old people 2. More for men vs. more for women 3. Upper class vs. lower class

This scale has been used later by numerous researchers. The original number of items was reduced by factor analysis from twenty to four by Han and Terpstra (1988). The authors did not give the details of the item-factor structure but only the following four underlying dimensions: 1) Technical advancedness, 2) Prestige, 3) Workmanship and 4) Price. They also added "serviceability" and "overall evaluation". Each of these six dimensions was then used as a unique measure on a 7-point scale.

Roth and Romeo (1992) are also among those proposing a multi-dimensional approach to the measure of perceived product quality. However, their approach is ambiguous since they seem to mix together the country image and the perceived quality of products. They state that: "Country image appears to be a multi-dimensional construct. As such it is unclear that a single measure of overall quality can be deemed equivalent to country image. Yet, country-of-origin studies frequently used a single measure of product quality rating in order to understand the impact of "made-in" stereotypes" (Roth and Romeo, 1992, p.481-82). They retain the following four dimensions for the perceived quality of products: 1) Degree of innovativeness (use of technological innovations or engineering), 2) Design (appearance, style, color, variety), 3) Prestige (exclusivity, social status, brand reputation) and, 4) Workmanship (reliability, durability, craftsmanship, manufacturing quality).

Finally, Heslop and Papadopoulos (1993) retained the three following dimensions as a result of a factorial analysis: 1) Product integrity, 2) Price/value and 3) Market presence. The item factor structure that was obtained is presented in Table 7.

Table 7 : Product quality dimensions obtained by Heslop and Papadopoulos (1993)

Dimensions	Bipolar adjectives (7-point scale)
Product integrity	1. Technically advanced vs. technically backward 2. Innovative vs. imitative 3. High level of workmanship vs. low level of workmanship 4. High quality vs. low quality 5. Reliable vs. not reliable 6. More concerned with outward appearance vs. more concerned with performance 7. Good service and warranties vs. bad service and warranties
Price/value	1. Expensive vs. inexpensive 2. Reasonably priced vs. unreasonably priced
Market presence	1. Large choice of size and model vs. limited choice of size and model 2. Recognizable brand names vs. unrecognizable brand names 3. Much advertising vs. little advertising 4. Easy to find vs. difficult to find

Table 8 allows us to compare simultaneously the different dimensions proposed by the above-mentioned authors for measuring the perceived quality of product. The studies listed in Table 8 are showing a quite consistent pattern with the four following dimensions: 1) Technical advancedness, 2) Design, 3) Prestige and 4) Workmanship and/or price for value.

Table 8 : Comparison of dimensions used to measure the perceived quality of product

Authors	Nagashima (1970, 1977)	Han and Terpstra (1988)	Roth and Romeo (1992)	Heslop and Papadopoulos (1993)
Dimensions	1. Price and value	1. Technical advancedness	1. Degree of innovativeness	1. Product integrity
	2. Service and engineering	2. Prestige	2. Design	2. Price/value
	3. Advertising and reputation	3. Workmanship	3. Prestige	3. Market presence
	4. Design and style	4. Price	4. Workmanship	
	5. Consumers' profile	5. Serviceability		

In order to obtain a reliable and valid measure of the perceived quality of products, we suggest that a confirmatory factor analysis should be conducted using the indicators and their associated latent variables shown in Table 9.

Table 9 : Latent variables and associated indicators for measuring the perceived quality of products

Latent variables	Indicators (bipolar adjectives, 7-point scale)
Technological advancedness	1. Innovative vs. imitative 2. Technically advanced vs. technically backward
Design	1. Stylish vs. not stylish 2. Clever use of color vs. not clever use of color 3. Large choice of size and model vs. limited choice of size and model
Prestige	1. Exclusive vs. common 2. Pride of ownership vs. not much pride of ownership
Workmanship	1. Reliable vs. unreliable 2. Careful and meticulous workmanship vs. not so careful and meticulous workmanship 3. Durable vs. not durable

7. Research propositions

7.1 Replication of Nagashima study

Longitudinal studies on the effect of country of origin are the exception (Darling, 1987 ; Darling and Wood, 1990). The study of Darling and Wood (1990) conducted over a period of ten years (1975-1985) in Finland is probably the most often cited. Results indicated an improvement in the perception of both American and Japanese products over the period. However, the improvement of the image of Japanese products was higher than for American products.

The study of Nagashima (1970, 1977) with data collected respectively in 1965 and 1975 among 100 Japanese businesspeople from Tokyo, evaluated the perception of products from the United States, Japan, Germany, England and France. This comparison at two points in time allowed the author to conclude that the image of American products had declined over the period whereas the image of Japanese products had improved.

We suggest that a replication of Nagashima's study would be very valuable to measure the relative position of American and Japanese products as perceived by Japanese businesspeople twenty years later. This would allow us to see how American products are now perceived after the important investments made by US manufacturers (e. g.: of the automobile industry) in product quality improvement. Such a replication is all the more valuable that published surveys of Japanese businesspeople are rare in spite of the world leadership of Japan in many industries.

7.2 Validation of a scale intended to measure the perceived quality of product

Collecting data among Japanese businesspeople would serve two additional purposes. First, this would allow us to test, by confirmatory analysis, the scale structure we have suggested in Table 9, and it would also be a unique opportunity to test the external validity of our proposed scale.

7.3 Development of a scale to measure the country image

The previous research studies that we have reviewed are a good starting point to develop a scale to measure the country image. The structure proposed by Martin and Eroglu (1993) is especially valuable (see Table 5). However, since they used students, the external validity of their scale is questionable. We suggest to administering the scale of Martin and Eroglu

(1993) to a sample of Japanese businesspeople. This would allow us to test the fitness of the scale structure by confirmatory factor analysis and to obtain an external validation of the multi-dimensional structure of the construct of the image of the country. The potential results are important for two reasons: First, because previous studies did not make a clear distinction between a uni-dimensional or multi-dimensional construct of the image of the country and second, in previous research, the construct of the image of the country has often been confused with the construct of country of origin of the product.

7.4 Development of a structural model

Data collected simultaneously on the image of the country and on the perceived quality of the product can be integrated in a new structural equation model. Our proposed model is presented in Figure 6. It follows the work of Han (1989) in the situation of limited familiarity with the country of origin and its products. In this case, the "halo" model is applicable and the image of the country is antecedent to the perceived quality of the product (see Figure 4). To keep our model parsimonious and testable, we accept that the construct of "country of origin" is a simplification and that country of design, country of assembly and country of manufacture could be explicitly incorporated in our model in the future. The measurement model of the image of the country is structured according to the three latent variables shown in Table 5 and their associated indicators. The measure of the perceived quality of the product follows the structure proposed in Table 9 with four latent variables and their associated indicators.

As shown in Figure 6, the reputation of the commercial environment is evaluated by the respondent with two indicators: the prestige of the brand and the reputation of the retailer. When the brand and the retailer are evaluated more positively, the commercial environment is more positive, and this will in turn increase the perceived value of the product. We propose also, that the perceived value of the product will be affected by the conditions of the transaction measured by two indicators: the price level and the level of warranty offered. The construct of perceived value of the product could be measured by two bipolar (very bad buy/very good buy ; very bad worth/very good worth) 7-point scales. Two 7-point-bipolar scales (would not recommend others to buy/would strongly recommend others to buy ; very low chance I would buy/very high chance I would buy) could also be used to measure purchase intention.

The structural model proposed in Figure 6 suggests that the country image directly affects the perceived quality of the product. The perceived quality of the product interacts with the

commercial environment in bi-directional fashion. The perceived value of the product is affected by the quality of the product, the commercial environment, and the conditions of the transaction. Finally, the purchase intention is affected by the perceived value of the product and by the conditions of the transaction.

The procedure necessary to test the model requires first to validate the measurement of the image of a country and of the quality of the product. This could be done for three countries (to keep the length of the questionnaire reasonable) using a series of semantic differential scales. The first part would allow us to simplify our model by keeping only three aggregate indicators of the image of the country and only four indicators of the quality of the product as shown in Figure 6. In the second part of the validation, the simplified model will be used to test if the structural relations between the six constructs of: country of origin, quality of the product, commercial environment, perceived value, conditions of the transaction and purchase intention are confirmed.

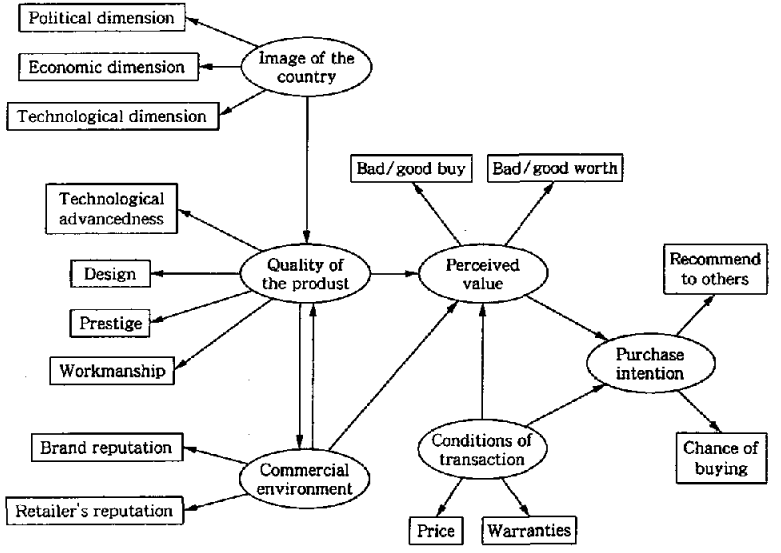

Figure 6 : Proposed model for a situation of limited familiarity of the country of origin and its products ("halo" model)

7.5 Additional research avenues

External validation of the proposed model could be achieved through replication of the

study for different populations. Businesspeople may show more sensitivity to the country of origin than general consumers. Because of time constraint, lack of information or lack of motivation, consumers may not take the country of origin into account as some studies have shown (Liefeld, 1993).

Replication of the study in different countries would also contribute to the external validity of the proposed model. Hong and Yi (1992) have shown with an experimental study among college students that country-of-origin effects were greater for Koreans than for Americans, especially when products are made in unfavorable countries. They suggested that the lower the imports of products from less developed countries (LDC), the higher the importance of the country of origin of products. For the evaluation of products imported from LDC, a "halo" model would therefore be more appropriate in the case of newly industrialized countries if they import less from LDC than from more traditionally highly industrialized countries.

The level of financial risk associated with the product was experimentally shown by Cordell (1991) to increase the aversion to products made in LDC. Future validation of the proposed model will therefore require to consider countries of origin of different reputation and different levels of financial risk for the consumer. Further one must be aware that within one country there may be various consumer segments concerning sensitivity to the country of origin of products. Some consumers, mainly motivated by economy, may be insensitive to the country of origin. Other consumers may totally refuse to buy products from LDC, while some may be ready to consider buying them if some concessions such as a price reduction or a generous warranty are offered.

8. Conclusion

The objective of this article was to review the research on the concept of the country of origin of products. Our conclusion was that the effect of the country of origin of products was significant (especially for perceived quality as opposed to purchase intention) but that there were many experimental factors that could strongly modify the relative importance of the observed effects. The studies on the subject have covered a wide variety of products and situations. The six following variables were identified as potential moderators of the effect of the country of origin: 1) Type of retail outlet and associated degree of prestige, 2) Price level and associated financial risk, 3) Level of warranty, reimbursement, after-sale service, 4) Level of brand name prestige and reputation, 5) Degree of product familiarity,

6) Country of assembly.

The measure of the image of the country of origin was also reviewed and a confirmatory factorial analysis of a multi-dimensional scale structure was proposed. The research on the perceived quality of products was reviewed and presented as a distinct multi-dimensional construct also in need of validation by confirmatory factorial analysis. A collection of data among businesspeople in Japan was proposed in order to test the external validity of both measures. Finally the framework of a tentative structural model was developed and discussed.

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