

## **State of Art: Product Adaptation in Times of Globalization**

**Egide Karuraranga, PhD**

Faculte des Sciences de l' Administration  
Sciences Administration-Departement de Management  
Universite Laval  
2325, Rue de L'Universite  
Quebec City, Quebec G1V0A6  
Canada

**Etienne Musonera, PhD**

Stetson School of Business and Economics  
Mercer University-Atlanta  
3001 Mercer University Drive  
Atlanta, Georgia 30341

**Amelie Poulin**

Faculte des Sciences de l' Administration  
Sciences Administration-Departement de Management  
Universite Laval  
2325, Rue de L'Universite  
Quebec City, Quebec G1V0A6  
Canada

### **Abstract**

*The subject of adaptation of products in an international context has gained popularity in recent years and it is desirable to conduct a systematic review on the subject by identifying and synthesizing relevant studies to date, in order to gain a better understanding of this concept and to guide future research. A systematic review of the literature on the topic of products adapting on internationalization of firms has definitely deepened our understanding of it. It is worth recalling here that the product adaptation is considered as the degree to which a product for a foreign market is different from that offered in the domestic market of a firm in terms of positioning, design, creation, logo, style, quality, features/special attributes, branding, packaging, labeling, warranties and extended product line. Using a rigorous scientific methodology, it was possible to answer two research questions. These were to know the factors influencing the degree of product adaptation on internationalization of firms and thereafter the impact on performance.*

**Key words:** Product Adaptation, Globalization and international Trade

### **1. Introduction**

International trade barriers continue to weaken, thanks to technological advances as well as trade liberalizations globally. Several companies are increasingly internationalizing through exports, licensing agreements, joint ventures or foreign direct investments, in order to take advantage of opportunities worldwide (Hollensen, 2011). An important aspect that firms ought to consider during their internationalization process is unquestionably the degree of standardization and adaptation that they wish to apply to their marketing mix of products / services (Czinkota and Ronkainen, 2004). Consider the simple case of a Canadian company wishing to market cosmetics in China.

The company will probably ask themselves several questions: Should the promotion be tailored to local Chinese market or be identical to how it is done in Canada? Should the price of cosmetics be standardized in order to project a uniform image of the brand, or adapted according to the purchasing power and needs of Chinese consumers? Should the distribution strategy of cosmetics in China be the same as in Canada to reach consumers? Finally, the company will be questioned about the degree of adaptation / standardization to make the centerpiece of its marketing mix, or the product (Kotler and Amsstrong, 2004). Thus, by internationalizing to China, the company will decide to either minimally modify its products to market and create a new brand to better connect with consumers, or create new products tailored to Chinese consumers.

In general, the term adaptation of products' in an international context refers to the fact that a firm offers in foreign markets, products that meet the regulatory and technical standards of the host country, and / or embed the culture , preferences, tastes and needs of consumers in this country (Cavusgil, Zou and Naidu, 1993). A company can adapt its product minimally, for example by translating only the information written on the packaging to access foreign markets and leaving the rest unchanged, or through efforts to maximum adaptation by creating a product specifically designed for consumers in the new market (Hollensen, 2011). Regardless of the degree of adaptation that a firm wishes to provide, either by meeting only the minimum technical standards and requirements for entering a market or completely changing the packaging, design, logo, brand, language and product ingredients, it would be interesting to further explore this topic.

Although standardization of products has many advantages such as economies of scale and establishing a strong brand as well as consistency (Czinkota and Ronkainen, 2004), several authors have different views regarding the benefits associated with product adaptation. For example, Stuart and Prahalad (2002) believe that adapting products can be a source of profitability, even if they are destined to an emerging country, as demonstrated in this case Hindustan Lever (HLL), subsidiary of Unilever in India: "In the 1990s, a local firm, Nirma, began offering detergents products for poor consumers, mostly in rural areas. In fact, Nirma created a new business system that included a new product formulation, special packaging for daily purchasing. In 1995, HLL saw its vulnerability and opportunity and responded with its own offering for this market. HLL's new detergent, called Wheel, was formulated to substantially reduce the ratio of oil to water in the product, responding to the fact that the poor often wash their clothes in rivers. [...] HLL, stimulated by its emergent rival registered a 25 percent growth in profits per year between 1995 and 2000". In addition, Hammond and Prahalad (2004) illustrate how the adaptation of products can stimulate innovation in a company: "In rural India, only four out of 10 households use iodized table salt, even though it provides a critical nutritional supplement. Due to India's environmental conditions, much of the iodine in salt is lost during transport and storage. To overcome this problem, HLL has developed a way to encapsulate iodine, protecting it from transportation and storage and releasing it only when salted food is ingested. The new salt required HLL in 2 years of advanced research and development".

This subject of adaptation of products in an international context has gained popularity in recent years and it is desirable to conduct a systematic review on the subject by identifying and synthesizing relevant studies to date, in order to gain a better understanding of this concept and to guide future research.

## **2. Objectives and Scope of Research**

The primary objective of this research is to identify and synthesize the relevant literature related to the theme of adapting products in international markets. Secondly, the objective is to identify factors that influence the degree of product adaptation in an international context and the impact on the performance of firms. With the results obtained, the research seeks to ultimately develop a conceptual model to help structure and guide future studies related to this theme. In designing this model, the state of knowledge about the four elements was carried out in the relevant literature:

1. The definitions and the terminology used by authors when referring to the concept of adapting products
2. The different methods used by authors in order to measure the adaptation of products
3. Factors influencing the degree of adaptation of products
4. The type of impact that the adaptation of products creates on the performance of a firm

In order to achieve the research objectives, a systematic review of the literature on the adaptation of products and includes articles written between 2000 and 2011 was performed.

### **3. Research Methodology**

A systematic review of the literature will follow a sequence of five stages, namely the precise formulation of research question, establishing criteria for inclusion and exclusion, identification of relevant studies, the evaluation and selection of writings and interpretation and synthesis of results (Lavis et al, 2005; cited by Landry et al., 2008). According to Landry et al, systematic review of literature is nowadays the most valid and credible for identifying and synthesizing existing knowledge on a given topic, which is in line with the objective of our research. This systematic review focuses on two main research questions. First, what are the factors that influence the degree of product adaptation on internationalization of firms? Second, what is the impact of the degree of product adaptation on firm performance?

#### **3.1. Criteria for inclusion and exclusion**

The selection of studies identified for the realization of this systematic review must meet specific criteria of inclusion and exclusion, so as to ensure that research is well framed. These criteria are essential since they serve as filters to eliminate spurious information or irrelevant information in the study. To be included in our systematic review, a document must first be a scientific article published in a magazine or academic journal, including peer reviews. Moreover, it must have been published between 2000 and 2011 to cover the fact in the literature. In addition, it must address, whether in an operational way or conceptual, the influencing factors on the degree of product adaptation in the internationalization of firms, or the impact of the degree of product adaptation on business performance, which are our two research questions. As exclusion criteria, scientific articles prior to 2000 were first eliminated from the research. Since the concepts and ideas are progressing very quickly in management, it was seen fit not to include articles dating back more than eleven years. These could be obsolete and thus distort the results. For the purpose of this review, it was deemed appropriate to focus solely on scientific articles.

#### **3.2. Research strategy**

It was essential to develop a strategy to efficiently locate precisely the writings of potential interest for the review. Thus, keywords such as adaptation, products, international firm, factors were first extracted from the research questions. For each of these keywords, a list of synonyms was then drawn up. In addition, 'Scholarly journal, including peer-reviewed' was selected during research to limit the results to scientific journal articles. Finally, Boolean operators like "and, or, not" were used to better focus on research articles. Several combinations of keywords and Boolean operations were also created. These allowed us to use several strategic keywords for advancing this research: local adaptation, product modifications, customization, localization, local variations, firm, marketing strategy, international, multinational, global, local preferences, local responsiveness, glocalization, internationalization.

#### **3.3. Selection of Articles**

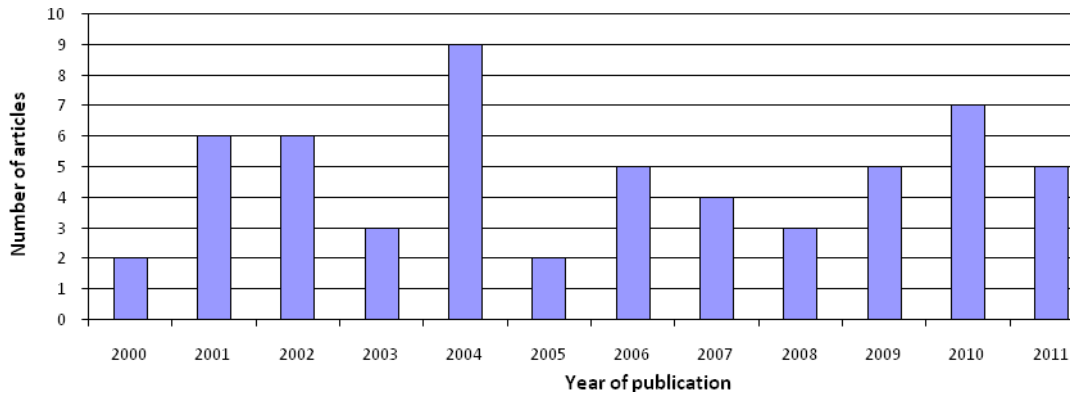
Research in electronic databases generated about 834 potential articles. Selection of articles was first performed by a cursory reading of titles and abstracts and following this first skimming, 752 items were eliminated. Subsequently, the 82 remaining articles were printed and read carefully in order to ensure they met all inclusion criteria. Subsequently, 27 items were ousted. Thereafter, 58 scientific papers from 39 different journals were finally selected for the review. For the sake of organization and synthesis and to extract most relevant data items for our analysis, reading slips were made with Microsoft Word software for each article. The development of these slips has also been a crucial step in the realization of the systematic review since it structured our thinking and allowed us to summarize the articles. Each list, with a maximum length of a page contains the following information: title of article, journal name, year of publication, author and affiliation, type of research (qualitative, quantitative and conceptual), concepts studied, assumptions made, sample and methodology, place, relationships and results validated or not, suggestions for future research and the database used to find the article.

### **4. Results**

#### **4.1. General characteristics of the selected articles**

It is interesting to observe the trend of publications of the selected articles between the years 2000-2011. Figure 1 shows the number of articles published between this time periods:

**Figure 1: Distribution of articles by year of publication**



Considering the number of articles published during 2000-2011, it can be realized that the adaptation of global products is a topic that does not date from yesterday and at the same time is still topical. Indeed, this subject has long interested researchers, particularly when compared with its antonym, product standardization, and will probably continue to be subject of future research since it is a complex aspect which managers are required to consider during their internationalization process (Hollensen, 2011). Since exports, joint ventures, mergers / acquisitions and direct investments abroad continue to flourish; we should see a continuation of this trend in the coming years. The explosion in the high number of articles published in 2004 can be explained by two factors. On one hand, according to World Trade Organization (WTO), the year 2004 was a very dynamic year at the world trade. For example, the volume of world merchandise exports grew by almost 10% over 2003 and exports to North America to Japan increased 5% and those intended to China by 25%. This force of world trade in 2004 probably inspired researchers on the topic of adapting products during the process of internationalization. On the other hand, another major feature of 2004 are emerging countries, namely China, which has grown (nearly 10%) and has experienced trade increase: "The dynamic growth and exports and imports in recent years has put China as the third largest major trading powers in 2004. China has even become the world's largest importer of many commodities and the leading global provider of a number of manufactures." The fact that China has confirmed his place on the world stage in 2004 and that several international companies have decided to direct their operations to that country explains why the literature has exploded during this year. It is important to note here that the majority of our systematic review articles that were published in 2004 dealt with adaptation of products to Asia, particularly China, Korea and Japan. Table 1 shows the comparison of the type of research conducted in the selected articles.

**Table 1: Comparison of research methods**

Type of Research	Percentage of Articles
Quantitative	53
Qualitative	35
Conceptual	9
Mixed	3

Thus, more than half of the articles selected for analysis include the formulation of hypotheses, a relatively straightforward methodology, data collection, analysis and interpretation of results, and the validation or not assumptions. This high percentage of quantitative articles is certainly interesting for the systematic review as they facilitate comparison of results generated by these studies. Further, if we compare the geographic regions and countries on which the articles are based, we see that East Asia dominates, with China being the most studied. As already mentioned, China has confirmed its position as a major player in the global economy and is increasingly involved in international operations, and hence, it has increasingly attracted the interest of researchers. North America contributes as the second major player with studies conducted on US companies. Moreover, the region least discussed among the selected articles is the Middle East and the region that was almost not at all studied is Africa. In addition, if we look at the place of origin of the affiliation of authors of accepted articles, regardless of the nationality of the university where they teach and do research, we note that nearly 65% of authors are attached to universities or Anglo-Saxon are in the US, UK, Australia or Canada.

The United States dominates the rankings because of a total of 120 authors who contributed articles and were affiliated to an American university. Furthermore, we observe that several geographic areas are under-represented in the rankings, such as Southwest Asia, Eastern Europe, the Caribbean and the South-east. Only 5.81% authors were affiliated with these four regions in total. Moreover, by comparison, 80% of authors of articles are associated with an academic institution of the North versus 20% of the South, which suggests a clear imbalance. It is also important to note that no writer is attached to any African institution, which is a certain gap in the representation of Africa in the systematic review. The details may be seen in Table 2.

**Table 2: Geographic regions and countries covered by articles**

Region	Country	Frequency	Percentage
<b>East Asia</b>	Taiwan	1	1.45%
	China	12	17.39%
	Republic of Korea	4	5.79%
	Japan	3	4.35%
			<b>28.98%</b>
<b>Southeast Asia</b>	Thailand	2	2.90%
	Malaysia	1	1.45%
			<b>4.35%</b>
<b>South-west Asia</b>	Turkey	1	1.45%
	Georgia	1	1.45%
			<b>2.90%</b>
<b>Oceania</b>	Australia	4	5.79%
	New Zealand	2	2.90%
			<b>8.69%</b>
<b>Middle East</b>	Israel	1	1.45%
			<b>1.45%</b>
<b>North America</b>	USA	11	15.94%
			<b>15.94%</b>
<b>South America</b>	Brazil	1	1.45%
	Chili	1	1.45%
			<b>2.90%</b>
<b>Western Europe</b>	France	1	1.45%
	Spain	1	1.45%
	Portugal	2	2.90%
	UK	5	7.25%
	Western Europe in general <sup>1</sup>	1	1.45%
			<b>14.50%</b>
<b>Eastern Europe</b>	Slovakia	1	1.45%
	Slovenia	1	1.45%
			<b>2.90%</b>
<b>Northern Europe</b>	Sweden	3	4.35%
	Denmark	1	1.45%
	Scandinavia in general <sup>2</sup>	1	1.45%
			<b>7.25%</b>
<b>No country in particular<sup>3</sup></b>		7	<b>10.14%</b>
<b>Total</b>		69 <sup>4</sup>	100%

<sup>1</sup> Article ne visant pas un pays en particulier mais plutôt la région désignée.

<sup>2</sup> Idem.

<sup>3</sup> Aucun pays ni région en particulier.

<sup>4</sup> Ce nombre est supérieur à 58 puisque des articles visent parfois plus d'un pays.

We also noted that among the 42 articles that had more than one author, 26% of them involved a collaboration of authors from universities of different countries, demonstrating a willingness to form multicultural teams for research on the adaptation of global products.

#### **4.2. Terminology generally used**

In the literature, the authors use several terms to refer to the concept of product adaptation in an international context. In nearly 35% of cases, the term direct product adaptation was used. Sometimes the adaptation of certain specific constituents of a product is discussed such as the 'adaptive design', 'format adaptation' or 'branding adaptation'. In lesser proportions (20%), the authors instead use terms such as 'glocalization', 'local responsiveness', 'customization', 'localization', 'local variations' or 'local adaptations'. Moreover, 30% of articles analyzed address the suitability of products as a marketing strategy for firm and they use the following terminology: 'international product adaptation strategy', 'marketing strategy adaptation' or 'export product adaptation strategy'. Furthermore, this concept has been addressed by some authors in very broad sense or as one of four elements of the marketing mix (product, price, promotion, distribution); terms such as 'marketing mix adaptation elements' and 'marketing mix adaptation constituents' are then used. In these cases, analysis of the items covered by this terminology has also been more difficult since it was necessary to insulate the component 'products' of the marketing mix to ensure a certain level of comparability of results with other sections of the systematic review. It was then essential to dissect the articles in order to find the answers to our research question, which affects only the element 'product' and not the other three components of the marketing mix.

#### **4.3. Definition of the adaptation of products**

The authors of articles included in this systematic review do not give any explicit definition of the adaptation of products in their studies. However, among the articles including this definition, there may be some consensus. In general, the adaptation of products in the process of internationalization of firms refers to an undertaking to change the physical characteristics or attributes of products to conform to certain standards required in a host country and/or to better meet the needs of consumers in this country (Horská et al, 2007). Several authors define the adaptation of global products, as the degree to which a product for a foreign market is different from that offered in the domestic market of a firm in terms of positioning, design, constitution (ingredients), logo, style, quality, features/special attributes, branding, packaging, labeling, warranties and extended product lines (depth and width of the product range) (Lages et al, 2008). In addition to these elements, some authors also include in the definition of the product adaptation the differences in color, size, performance and service products for the foreign market versus those that are found in the home market (Vrontis, 2003). Horská et al. also gave a concrete example of adapting products to understand the concept: "An example of adaptation could be the decision of Whirlpool to enter the Chinese refrigerator market -through a series of product modifications including product size exchange, electrical cycle adaptation, new finish colors, serviceability and reparability considerations" (Horská et al, 2007).

Moreover, some researchers describe the adaptation of products as the degree of uniqueness of a product intended for a foreign market (Julian and O'Casey, 2002). In other words, more a product has been specially designed to meet consumer needs for a foreign market, it was more appropriate. Finally, some authors present the adaptation of products very schematically in their articles. Indeed, some authors describe this concept as a position on a horizontal axis formed by two extremes: on one hand, a pure standardization of products, and the other a pure adaptation (Lages et al, 2008). Due to various factors of influence, this position tends to be closer to one or other of these two extremes and is evolving and changing.

#### **4.4 Measurement of the adaptation of products**

Authors of selected papers have made use of different tools to measure the adaptation of products - questionnaires, interviews or case studies. Of the 58 items, 55% involve questionnaires, 16% interviews and 20% case studies. 9% of articles did not use any tool since they were relatively conceptual in nature and hence, focused on comparing studies that have been made on the adaptation of products to date.

##### **4.4.1 Questionnaires**

According to the main objective, questions were asked by respondents. Some items are intended to determine the factors influencing adaptation of products, while others the impact of adaptation on the performance of the firm. The questionnaire contained a section dedicated to the profile of the firm.

This section has enabled researchers to obtain general information such as number of employees, its founding date, product type (industrial or consumer goods), number of foreign markets and the type of international operations in which the firm is involved (export, foreign direct investments, licensing agreements, joint ventures). For articles focusing on the factors influencing the adaptation of products, issues related to industry, business and foreign market were frequently sent to respondents. For example: how is it that the foreign market competitive? How are laws and socio-economic environment of the foreign market similar to those of the domestic market? What is the level of international experience of managers in your firm? Is the culture of the foreign market similar or different from the original market of your business? (Sousa and Lengler, 2009). Regarding items utilizing the impact of adaptation on the firm performance, issues related to the perceived success by management about the internationalization of operations, sales targets of the firm at the rate of international sales growth, market share and profits as compared to the competitors were asked.

Finally, the following questions about the degree of adaptation of products were submitted to respondents: how and to what degree the product have been physically modified to meet the conditions of the export market? How does the internationalized product reflect consumer preferences of the target market? Does the export product reflect the culture and the target market? If yes, at what level? How is the product packaging suited to the local language of the foreign market? (Tatong et al, 2010). Does your organization fit the following in its foreign markets: product quality, brand name, image, variety of colors, packaging, design, and service? (Vrontis, 2003). These questions were designed to measure the suitability of the products by assessing the degree of changes made to products intended for foreign markets in terms of quality, logo, packaging, ingredients, brand, style, design, scope of product line, etc.

It is important to emphasize here that the answer choices presented to the subjects was done through Likert scales 5, 6, or 7 points. For example, following questions from interviewers, respondents were asked to choose among the different elements of answers: 1 = no adaptation, 5 = substantial adaptation (5-point scale), 1 = somewhat similar, 6 = highly similar (6-point scale), 1 = very significant, 7 = not at all significant (7-point scale).

#### **4.4.2 Case Studies**

Case studies allowed us to explore the phenomenon of product adaptation in a real context using specific examples of firms that are involved in international activities and have been faced with decisions adapting their products at some point in their lives. Majority (80%) of interviews were conducted face to face with respondents. This gave us the flexibility of open-ended questions and easy discussions with the interviewers where appropriate.

#### **4.5 Operationalization of product adaptations**

Adaptation of products has sometimes been operationalized as a dependent, independent or intermediary variable in articles. 54% of the articles presented as a dependent variable, 24% as an independent variable and 5% as an intermediate variable. 17% of the articles discuss adaptation without presenting it as a variable in itself but as a general concept. These items were nevertheless included in the systematic review to learn more about this concept and to gain a better understanding.

The articles addressing the adaptation of products as a dependent variable (measured by the degree of changes made to products intended for foreign markets in terms of quality, logo and packaging, etc.) looked for the most part to identify factors influencing it. For example, some authors have sought to discover whether the changes that a firm decides to bring to a product to be exported to a foreign market was positively influenced by psychic distance that managers of this firm have with respect to foreign market (Sousa and Lengler, 2009).

The articles are interesting rather to the adaptation of products as an independent variable have attempted to discover the effect it can have on firm performance (measured by including the company's profitability, the share of market and the profits of the firm compared to competitors). For example, some researchers have attempted to observe whether the adaptation of products had an impact on the satisfaction of managers with respect to export performance (Lee and Griffith, 2004).

#### **4.6 Problems of methodological research**

Although studies by the authors of the articles selected for the systematic review can certainly advance research in the field of adaptation of global products, however these studies are not perfect and some methodological shortcomings may well be raised.

#### **4.6.1 Low response rate of respondents**

Figure 4 shows the fairly low response rate of respondents in quantitative studies. Among the 33 quantitative articles identified, 78% of them have response rates below 50%, greatly reducing the sample size originally planned. Further, 24% of studies had a response rate between 20-30%. These low rates can be explained by two factors. On the one hand, the vast majority of questionnaires were mailed to respondents, which significantly reduces the probability of participation thereof. Indeed, given that individuals can respond at their own pace to mailed questionnaires, compared to those administered by phone or in person which they must respond immediately, they often tend to put them aside and researchers must then wait several weeks before receiving answers. Since they have time constraints to do their research, they often find themselves obliged to do their analysis with the few questionnaires received. (Hollensen, 2011).

Moreover, the method with mailed questionnaires, researchers often have to eliminate those with the batch was completed by a respondent non-eligible or those who have simply not been adequately filled. So rather than using this method, researchers could consider administering questionnaires by telephone, which generally has a higher rate of response (Czinkota and Ronkainen, 2004). Another reason that could explain the low response rates is the fact that the questionnaires were primarily intended for senior managers of firms involved in international markets. As these frameworks are often less available than ordinary people, because among other of their busy schedules, the probability that they meet questionnaires tend to be low (Hunt and Chonko, 1987, cited by Tantong et al., 2010).

#### **4.6.2 Simplicity methodological**

A further methodological problem identified in the articles is that only 4 of enter-they have carried out longitudinal studies while all others are cross-sectional studies. Longitudinal studies are however very interesting since they allow to observe the evolution of samples over time and track them based on an initial situation (Czinkota and Ronkainen, 2004). Cross-sectional studies have in turn a much more punctual and static since they do not follow the evolution of a sample over the years. Some authors such as Hise (2010) have also suggested at the end of their article that longitudinal studies may be conducted by researchers to observe for example how the degree of adaptation of products in the same group of firms has been changed during a period of 10 years (Hise, 2010).

#### **4.6.3 Simplicity samples**

In addition, certain simplicity of samples included in the items can be found on the multicultural character of these. In view of the international business, it is certainly important to make comparisons between nations and not just focus on samples consisting of firms from one country. However, studies conducted by researchers from our systematic review relate to 80% of companies from a single country and only 11 of 58 articles trained using samples of firms of different nationalities. For example, the article by Petersen and Pedersen includes a sample of international firms export from Sweden, Denmark and New Zealand and aims is to make comparisons between them in terms of adaptation of their products (Petersen and Pedersen, 2002). It is also important to note that among the items at the end including detailed suggestions from the authors for further research, 33% of enter-they underscore the importance of making 'multi-country analysis' or reproduce their study in other countries so they can better generalize the results and to test the validity thereof.

#### **4.6.4 Problems of linguistic equivalence of instruments**

Finally, a certain gap in the linguistic equivalence of measurement instruments can be observed in several articles. In international research, it is common for instruments used by researchers, mostly questionnaires, have been designed in a different language from that spoken by the respondents in the sample. In this case, the adequate translation of questionnaires in the language of the respondents is important to effectively achieve the intended audience, to ensure that the terms and concepts are equivalent in both languages and to avoid possible ambiguities in the terminology. In order to make an optimal translation, the technique of back-translation, which involves translating a questionnaire from an original language to a target language and then translate the questionnaire from the target language in the original language order to detect inconsistencies, is often desirable (Czinkota and Ronkainen, 2004). Despite the importance of back translation, only 22% of articles have used it to make sure to respect the linguistic equivalence of the questionnaires.



For example, in studying Tantong et al (2010), since the original questionnaire was designed in English and addressed to Thai firms, an individual bilingual (English, Thai) with an MBA from a U.S. university and familiar with the Marketing and terminology associated with international management was first translated the questionnaire from English into Thai and then another person holding the same profile has translated the questionnaire from Thai to English. Both versions of the questionnaire were then compared and the differences observed were resolved prior to the official administration of questionnaires to respondents (Tantong et al, 2010). Of the 78% of articles did not use the equivalence of measurement instruments, 38% of them used questionnaires designed in the same language as the respondents. For example, Australian researchers interested in a sample of New Zealand firms have had no need to translate their questionnaire written in English since the language of researchers and subjects was common. Moreover, in 14% of the articles, the authors have not alluded to any translation of questionnaires. Finally, 26% of articles did not use questionnaires and have not had to worry about the equivalence of this measurement tool because they are conceptual in nature or have used the method of case study of how to approach the topic of adapting products. In short, the fact that only 22% of the articles that are concerned with linguistic equivalence of their measuring instruments, so that the terminology used is comparable from one language and one culture to another, is definitely an important methodological shortcoming observed in the articles selected for the review. Poor questionnaire results can mislead respondents and can certainly skew the results.

## **5. Results Obtained**

### **5.1 Degree of product adaptation as dependent variable**

Despite some methodological issues raised above, the articles selected for the systematic review were still able to meet the initial research question, which were to discover the factors influencing the degree of product adaptation at internationalization of firms in a foreign market and the impact thereof on business performance. Since 54% of the articles discuss the adaptation of products as a dependent variable, by addressing the factors affecting it, the emphasis has been primarily on this aspect. Following the analysis of items, six categories of factors were identified: environmental, structural, organizational, and cultural factors related to products and consumers.

#### **5.1.1 Environmental Factors**

Several authors agree that the similarities / differences in legal, economic, political and socio-cultural home market of the firm and the foreign market where it goes global have an impact on the degree of product adaptation (Waheeduzzaman and Dubé, 2004). For example, a firm operating in a foreign market might need to adapt some elements of its products, including packaging, in order to meet the language requirements of the host country. When Danone, a French company decided to enter the Chinese market, the language of the initial products had been adapted (the Danone brand was listed on the packaging of products in Western languages on one side, and Chinese characters on the other) due to socio-cultural differences between the two markets (Melewar et al, 2006). Other authors emphasize that more the foreign market is physically near the home market of the firm, the less it will adapt its products, including packaging (Horska, 2007).

#### **5.1.2 Structural factors**

Among the structural factors most often mentioned by authors as influencing the degree of corporate adaptability, intensity of competition in the foreign market is definitely the most cited. The more there are competitors in a foreign market, the more the firm is under pressure to adapt its products according to consumer preferences to remain competitive and alert. In addition, differences in marketing and logistics infrastructure between the foreign market and the domestic market of the firm were identified as having a positive impact on the degree of product adaptation, particularly in their guarantees components and service (Theodosiou and Leonidou, 2003). Moreover, the size of the foreign market and the level of adaptation of the industry involved in it are also factors that encourage firms to make changes to their products (Calantone et al, 2006). Finally, some authors stress the fact that more the demand in the foreign market is intense; more the companies are likely to alter some aspects of their products (Alshban et al, 2002).

#### **5.1.3 Organizational factors**

A common cause that has been identified by researchers as affecting the degree of product adaptation is the international experience of firms.

However, authors have varied opinion in this respect, some have determined that this factor has a positive impact on the degree of product adaptation while, others have demonstrated a negative impact. For example, some researchers estimate that more the number of years during which the firm has been involved in international trade, the higher it will make adjustments to internationalize its products (O'Cass and Julian, 2003). Others are less inclined to believe this opinion (Robles, 2000). Despite the differences observed in articles, a positive relationship between the international experience of the firm and the degree of product adaptation is supported by a higher number of studies.

Moreover, we note that the involvement of financial and management firm in its internationalization is positively related to the degree of product adaptation. Several authors have shown that the level of time and effort expended by members of the management activity of internationalization of the firm and the number of financial resources allocated to it have a positive impact on the degree changes of products for the targeted foreign market (Lages et al, 2008). In addition, an author noted that the fact that a firm has contacts with the government of the foreign market also has a positive impact on the degree of product adaptation (Chung, 2002). However, since this factor has been identified only in one article, one cannot generalize this result. Finally, factors such as the level of leadership of the firm and practices geared towards clients also seem to positively influence adaptation (Timmor and Zif, 2005).

#### **5.1.4 Factors related to products**

Some authors have shown that the type of products covered by the activity of internationalization of the firm influences the degree of product adaptation thereof. These firms will tend to adapt to a greater extent the various elements of consumer products than those of industrial products (Vrontis, 2003). This can be explained among others by the fact that unlike industrial products, consumer products have greater proximity to consumers since they are used directly by them and not to later produce other goods. Therefore, firms must ensure they reflect consumer preferences and adjust accordingly if necessary. Moreover, the level of prestige and status of products are also factors that play a crucial role in the degree of product adaptation. Some authors insist that if a product is more prestigious and have a high status, especially a brand, then firms will be less inclined to adapt it (Willis, 2006). This can be explained by the fact that companies often want to preserve the value, authenticity and international brand equity of high-end products because that's what consumers desire. The study by Willis demonstrated that Western luxury (including cosmetics) must undergo minor adjustments in Asia, without which Asian consumers find that they lose their prestige, value and exoticism (Willis, 2006). Finally, it has been found that the product life cycle also has an affect on the degree of product adaptation (Theodosiou and Leonidou, 2003). A company wishing to internationalize a product that is in phase introduction phase of its life cycle will have to adapt much more than if it is in maturity phase.

#### **5.1.5 Factors related to consumers**

Several authors agree that consumer preferences have a significant impact on the degree of corporate adaptability. For example, the case of Danone clearly shows that due to differences in consumer preferences in China, the company had to make certain changes to its products on entering the market. Since Chinese consumers care about their healthy, algae extracts and iron supplements were added to the list of ingredients of the original biscuits (Melewar et al, 2006). Furthermore, the differences between the habits / behaviors of consumers of home market and foreign market also emerged as a factor of influence on product adaptability. For example, Disney illustrates how it had to adapt its menu when it entered the French market due to divergences in consumer habits. Although the menus for Disney around the world do not include alcohol, the company had to modify them in France as French consumers are accustomed to consume an alcoholic beverage during lunch or dinner. Disney has changed the supply of its products in its menu and it is now possible to consume wine in restaurants in Disneyland Paris (Matusitz, 2010).

#### **5.1.6 Cultural factors**

Finally, some authors present the psychological distance as having a positive impact on the degree of product adaptation. It has been shown in several articles that more the managers perceive differences, whether real or not, between the domestic and foreign market, the more likely they are to bring changes to their products (Sousa and Filipe, 2011). In addition, the cultural distance between the home market and foreign market has been observed as influential factor by authors, although there is no unanimity among them.

This has sometimes been identified as having a negative impact, and sometimes a positive impact on the degree of adaptation of products. However, there remain several articles discussing that more a foreign market is culturally remote (in terms of power distance, uncertainty avoidance, dimension feminine / masculine and individualism / collectivism), more it will adapt some elements of its products (Horksa et al, 2007). Thus, we can assess that with cultural distance between home market and foreign market, a firm has a positive impact on the degree of product adaptation.

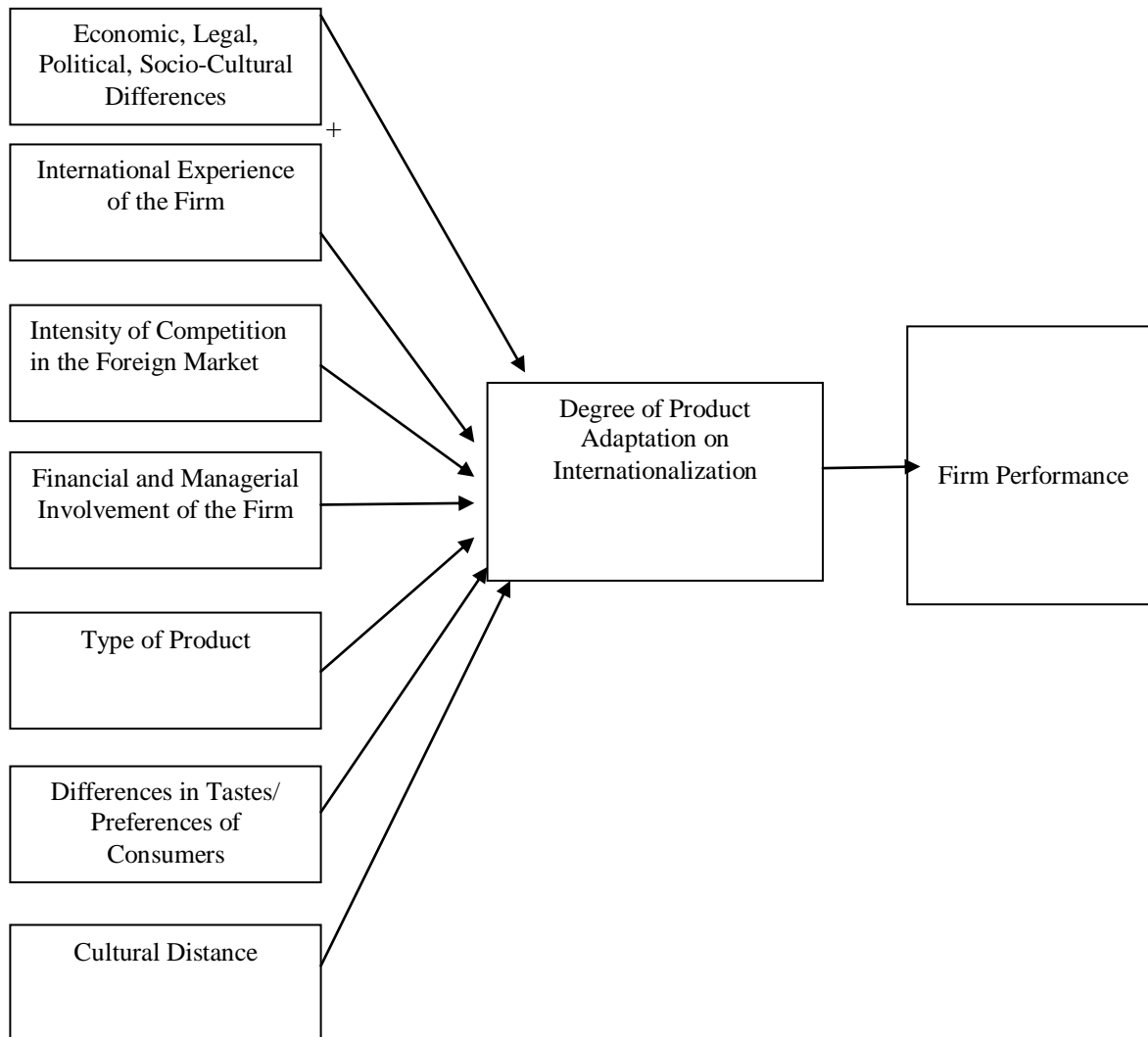
### **5.2 Degree of product adaptation as independent variable**

Of the 24% of the articles included in this systematic review addressing the degree of product adaptation as independent variable, the authors were all interested in the impact it has on firm performance. In order to achieve their ends, authors have mainly evaluated the performance of firms according to the following: market shares of the firm in the foreign market (Langler and Sousa, 2009), perceived success by the firm around its internationalization activity (e.g. exports) (O'Cass and Julian, 2003), profitability from this activity (Calantone et al, 2004), achieving the initial objectives (Adis, 2010), sales growth in the market abroad (Robles, 2000) and the satisfaction of the firm regarding its activities in the foreign market (Lee and Griffith, 2004). 63% of articles examining the relationship between the degree of product adaptation of firms and the performance of these found a positive relationship between these two variables, while 37% saw either a negative or no relationship at all. It can therefore be concluded that the degree of product adaptation of a firm on internationalizing in a foreign market has a positive impact on the performance since the majority of results obtained by researchers support this correlation between two variables.

### **5.3 Integrative conceptual framework**

At this stage of the analysis, it is now possible to propose an integrative conceptual framework for viewing the factors influencing the degree of product adaptation of a firm on internationalizing in a foreign market and the kind of impact it creates on performance. The details of the same may be seen in Figure 2.

**Figure 2: Integrative conceptual framework**



**6. Conclusion**

**6.1 Summary of main results**

A systematic review of the literature on the topic of products adapting on internationalization of firms has definitely deepened our understanding of it. It is worth recalling here that the product adaptation is considered as the degree to which a product for a foreign market is different from that offered in the domestic market of a firm in terms of positioning, design, creation, logo, style, quality, features/special attributes, branding, packaging, labeling, warranties and extended product line. Using a rigorous scientific methodology, it was possible to answer two research questions. These were to know the factors influencing the degree of product adaptation on internationalization of firms and thereafter the impact on performance. The review of the literature on one hand identified several factors influence the degree of adaptation, which can be classified into six broad categories of environmental, structural, organizational, cultural, factors related to products and consumers. Among the factors most frequently cited by the authors and having considerable influence on the degree of adaptation, there are other differences like economic, legal, political and socio-cultural between the home market of the firm and the foreign market (environmental factor), the intensity of competition in the foreign market (structural factor), international experience of the firm and the financial and managerial implication (organizational factors), differences between tastes and preferences of consumers (consumer-related factor), cultural distance between the home market of the firm and the foreign market (cultural factor) and the type of products to internationalize (factor related to products).

On the other hand, the literature led to highlight the types of relationships between the degrees of product adaptation of firms to the performance. According to the articles reviewed, the relationship between these two variables is positive. For a company to adapt various components of its products in foreign markets has a positive impact on performance.

### **7. Limitation of the Study**

Although the systematic review has helped to make a good state of knowledge on the topic of adapting products, it has some limitations. First, since the focus has only been on scientific papers published in journals or academic journals; may be some other relevant information about the study could be found in books, dissertations, master's theses and doctoral thesis. Second, since the articles prior to 2000 were excluded from the review, it is possible that interesting concepts are found in these articles and they could have advanced our thinking had they been included in the study.

### **8. Implications for Managers**

Due to the increasing internationalization of firms globally, managers will increasingly be required to make decisions regarding the standardization / adaptation elements of their marketing mix. The review will enable managers wishing to target their products to foreign markets to better understand the theme of adaptation and have more structured factors affecting the degree. Through the conceptual framework integrator that has been analyzed, managers may well understand, for example, that the higher the cultural distance between home market and foreign market, higher the adaptation of various components is required. This framework can also serve useful when making decisions related to the degree of standardization / adaptation to be made on internationalization.

#### **8.1 Directions and suggestions for future research**

Since the vast majority of items included in the systematic review were written by authors affiliated with universities of the North, mainly Anglo-Saxon countries, it would first be interesting that future studies are carried out by researchers from universities in the South, so as to have a broader vision of the theme of adapting products. Moreover, since the vast majority of the selected articles have focused on China or the United States, we suggest researchers to conduct more studies on countries located in Africa, the Middle East and South America, this may diversify the results and new factors influencing the degree of product adaptation could be identified.

Furthermore, it is desirable that authors perform analysis using a multicultural sample of firms from different countries, so as to make comparisons and to better generalize results. For example, future research could focus on the degree of adaptation of a Brazilian cosmetics company, American and Japanese as well as the differences / similarities found in this respect among the three firms. It would also greatly benefit if further research included a qualitative approach to address the issue of adapting products. Since qualitative research comprised of only 35% of the articles selected for the systematic review versus 53% quantitative research, it would be important to find a more balanced ratio. With a better balance between these two methods, it would be possible to have a more complete understanding of the theme of adapting products. Also, qualitative research should definitely not be overlooked in future research since they are often used to explain and reinforce the results obtained in quantitative research. Finally, the conceptual framework proposed integrator should be tested by researchers in future studies involving companies from different countries and industries.

### **9. References**

- Adis, A. , 2010. Export Performance on the Malaysian Wooden Furniture Industry: An Empirical Study. *Journal of International Food & Agribusiness Marketing*, 22(1/2): 52-69.
- Alashban, Aref A., Hayes, Linda A., Zinkhan, George M., and Balzas, Anne L., 2002. "International Brand-Name Standardization/Adaptation: Antecedents and Consequences," *Journal of International Marketing*, Vol. 10(3): 222-48.
- Calantone, R., Daekwan Kim, Jeffrey B Schmidt, & S Tamer Cavusgil, 2006. The influence of internal and external firm factors on international product adaptation strategy and export performance: A three-country comparison. *Journal of Business Research*, 59(2):176-185.
- Calantone, R. J., Cavusgil, S., Schmidt, J. B., & Shin, G., 2004. Internationalization and the Dynamics of Product Adaptation—An Empirical Investigation. *Journal of Product Innovation Management*, 21(3): 185-198.

- Cavusgil, S Tamer, Zou, Shaoming, & Naidu, G M., 1993. Product and promotion adaptation in export ventures: An empirical investigation. *Journal of International Business Studies*, 24(3): 479.
- Chung, H. L., 2002. An Empirical Investigation of Marketing Programme and Process Elements in the Home-Host Scenario. *Journal of Global Marketing*, 16(1/2): 141.
- Czinkota M. & Ronkainen I., 2004. *International Marketing*. Thomson South-Western. Seventh edition.
- Hammond, A., & C K Prahalad, 2004. Selling to the poor. *Foreign Policy*, 14(2): 30-37.
- Hise, R., 2010. Are US companies employing standardization or adaptation strategies in their international markets? *Journal of International Business & Cultural Studies*, 41-29.
- Hollensen, S., 2011. *Global Marketing. A decision-oriented approach*. Financial Times Press. Fifth edition.
- Horská, E., Iveta Ubreziova, & Tauno Kekäle, 2007. Product adaptation in processes of internationalization: Case of the Slovak food-processing companies. *Baltic Journal of Management*, 2(3): 319.
- Hunt, S. D. and L. B. Chonko, 1987. Ethical Problems of Marketing Researchers. *Journal of Marketing Research* 21: 309–324.
- Julian, J., & Aron O'Casey, 2002. Drivers and Outcomes of export Marketing Performance in a Developing Country Context. *Journal of Asia Pacific Marketing*, 1(2): 1-21.
- Kotler, P. & Armstrong A., 2004. *Principles of Marketing*. Upper Saddle River, NJ: Prentice Hall. Tenth edition.
- Lages, L.P., José Luís Abrantes, & Cristiana Raquel Lages, 2008. The STRATADAPT scale: A measure of marketing strategy adaptation to international business markets. *International Marketing Review*, 25(5) : 584-600.
- Landry, R. et al., 2008. *La recherche, comment s'y retrouver? - Revue systématique des écrits sur le transfert des connaissances en éducation*. Gouvernement du Québec. Ministère de l'Éducation, du Loisir et du Sport.
- Lavis, J., H. Davies, R. Gruen, K. Walshe and C. Farquhar, 2005. Working Within and Beyond the Cochrane Collaboration to Make Systematic Reviews More Useful to Healthcare Managers and Policy Makers. *Healthcare Policy* 1(2): 21-33.
- Lee, C. and Griffith, D. A., 2004. The marketing strategy-performance relationship in an export-driven developing economy. *Journal of international Marketing Review*, 21 (3) : 321-334.
- Matusitz, J., 2010. Disneyland Paris: a case analysis demonstrating how glocalization works. *Journal of Strategic Marketing*, 18(3): 223.
- Melewar, T. C., Badal, E., & Small, J., 2006. Danone branding strategy in China. *Journal of Brand Management*, 13(6): 407-417.
- O'Casey, A., & Craig Julian, 2003. Examining firm and environmental influences on export marketing mix strategy and export performance of Australian exporters. *European Journal of Marketing*, 37(3/4) : 366-384.
- Petersen, B., & Pedersen, T., 2002. (of Marketing Mix Elements in International Markets. *Journal of Global Marketing*). Coping with liability of foreignness: Different learning engagements of entrant firms. *Journal of International Management*, 8(3): 339.
- Robles, Fernando, & Akhter, Syed H., 2000. International catalog mix adaptation: An empirical study. *Journal of Global Marketing*, 11(2): 65-91.
- Sousa, C. P., & Lengler, J., 2009. Psychic distance, marketing strategy and performance in export ventures of Brazilian firms. *Journal of Marketing Management*, 25(5/6): 591-610.
- Sousa, C. P., & Luis Filipe Lages, 2011. The PD scale: a measure of psychic distance and its impact on international marketing strategy. *International Marketing Review*, 28(2): 201-222.
- Stuart Hart & Prahalad C K, 2002. The fortune at the bottom of the pyramid. *Strategy+business*. Issue 26. First quarter.
- Tantong, P., Karande, K., Nair, A., & Singhapakdi, A., 2010. The effect of product adaptation and market orientation on export performance: a survey of thai managers. *Journal of Marketing Theory and Practice*, 18(2): 155-169.
- Theodosiou, M., & Leonidou, L. C., 2003. Standardization versus adaptation of international marketing strategy: an integrative assessment of the empirical research. *International Business Review*, 12(2): 141.
- Timmor, Y. and Zif, J., 2005. A Typology of marketing strategies for export. *Journal of Global Marketing*, Vol. 18(3): 37-78.
- Vrontis, D., 2003. Integrating Adaptation and Standardization in International Marketing: The AdaptStand Modelling Process. *Journal of Marketing Management*, 19(3/4): 283-305.
- Waheeduzzaman, A. M., & Dubé, L.F., 2004. Trends and Development in Standardization Adaptation Research. *Journal of Global Marketing*, 17(4): 23-52.
- Willis, M., 2006. To Adapt or to Standardise: Testing Asian Views About Purchasing Western Luxury Products in Seven Asian Locations. *Journal of East - West Business*, 12(1), 65-94.