

Cultural diversity as a strategic source for designing pleasurable and competitive products

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Abstract: The strengthening of the globalization process has intensified the international competitiveness strategies of the dominant industrial oligopolies in world markets, destructuring and restructuring the industrial complex of several countries, and promoting the incorporation of countless national companies. Such a scenario has directly affected the design of artifacts, which finds itself facing impasses between the catering for imperatives of standardization of components and products and the consideration of cultural identity aspects.

Based on a case study carried out in the home appliances industrial field, this article discusses the practice of industrial design within the context of the globalization process. Its main objective is to analyze how symbolical, practical and technical requirements of products have been translated by design, facing the question of cultural diversity.

Brazil is focused here, since it has recently experienced incorporations of several national companies by big multinational corporations, and is a country where globalization occurs in a complex, unequal and contradictory manner, and where multiculturalism, hybrid processes and manifestations of cultural diversity coexist.

This article starts from the understanding of the concept of culture as the nets of meanings woven by the human being in the societies in which he/she develops his/her conduct, according to an interpretative approach proposed by Clifford Geertz [4-6]; And globalization is here understood as a phenomenon of an essentially paradoxical and unequal nature in its manifestations in the several realities.

The used method includes interviews with designers and data research about products and design management.

This study emphasizes the cultural diversity as a strategic source for designing pleasurable and competitive products; and the importance of designing products for society within a perspective of social and cultural responsibility and commitment, so as to enable it to promote emancipation, sustainable development, improvement of quality of life as well as the preservation of legacies and cultural identities of individuals and social groups.

Key words: *Design, Culture, Pleasurable and Competitive Products*

1. Introduction

In the sphere of the development of products, the industrial design has come face to face with the globalization process, which has grown stronger notably from the 1990's, when we could witness a wide expansion of multinational corporations within the world.

The national domestic companies have experienced the globalization process closely, and, in the last few years, many of them have been incorporated, if not swept away, by big multinational corporations, as a result of the national and international social, cultural, technological, political and economical context.

Taking into account that organizations “are part of a society, and therefore part of its culture” (Motta, 1995 : 20) [13], we can understand that the incorporation of national companies by multinational ones can implicate in the

introduction of distinct structures and organizational objectives, perhaps even conflicting with the local values, influencing the creation of artifacts, and begetting systems of practices and meanings that are distinct from reality, as well as from the characteristics and needs of individuals and social groups.

Such a scenario has reinforced the importance of a better understanding about the question of cultural diversity in relation to the role and practice of the industrial design within “local” and “global” dimensions.

By adopting a “global” design, we would have world-wide standardized products, and this would demand a universal communication with markets by them, products being able to penetrate all social, economical, political and cultural barriers. Or still, in a less extreme situation, the role of the industrial design could be relegated to a merely “cosmetic” treatment, with global products having a common engineering planning, and the work of the designers being limited to a superficial tuning to segments or particular localities of markets.

Nevertheless, in the last decades, we have verified that consumers and users have been more attentive to the quality of products and services, besides being worried with prices and offer levels. Thus, the resistance to global standardization of products has been reinforced, despite the existence of corporate strategies directed to that.

The cultural diversity reflects itself in the perception of the world, in activities and preferences of people who search for identification with products, which constitutes, until this moment, a relative barrier to the process of homogenization, and an open way to a “local” design, tuned to the characteristics, yearnings and needs of consumers and users.

In the core of the economic globalization process, an important question has been put to designers, especially in those companies which have been incorporated or associated to multinational groups: How to consider the question of cultural diversity in design?

The slogan “think globally, act locally” from Percy Barnevik, ABB's boss, has spread within organizations, reaching, inclusively, the sphere of the design. This idea reflects the vision that international patterns should be mixed to specific national elements in the development of products. Based on this perspective, Bartlett and Ghoshal proposed the development of world products with modularized structures, according to the national markets [2]. Nevertheless, these concepts haven't made clear what the role of design is, in relation to the question of cultural diversity within the “local” and “global” dimensions.

The main objective of this paper is to bring a contribution to the studies about the question of cultural diversity within the practice of the industrial design, in relation to the symbolical, practical and technical requirements of the products.

In the light of Clifford Geertz's [4-6] and Néstor Garcia Canclini's [2] concepts, this paper is based on the understanding of culture as a phenomenon that is essentially dynamic and intimately linked to the process of social and economical development of society. Culture is seen as a phenomenon which is able to represent, reproduce and transform the tangible and intangible elements that shape the social system and life, influencing and being influenced by the economic practices and symbolical relations.

It takes into account that people must be attentive to local particularities, as well as to cultural diversity, respecting other cultures, and, at the same time, having a critical vision and a moral commitment about society. It is considered that, in intercultural relations, people must search for understanding the experiences of other cultures, assimilating and reinterpreting those that can bring benefits to them, in terms of quality of life.

Furthermore, it is understood that cultural diversity is not limited to the concept of “nations” - considering that these are “dichotomist phenomena” that have been hierarchically built top-down, but that can only be understood if

they are analyzed from down to top, which means “in terms of common people’s suppositions, hopes, needs, yearnings and interests, which are not necessarily national, and much less nationalist”, as affirms Hobsbawn (1999 : 19) [8]. Cultural diversity is, actually, particularized by the identity of each individual and social group, and it is a plural and dynamic concept.

This paper is focused on the practice of industrial design in Brazil, which is a country that belongs to the group of nations so called “from the Third World”, “developing”, or “peripheral”, and in whose context the globalization occurs in a complex, unequal and contradictory manner, co-existing with the dynamics of plurality and cultural hybridism. In such a scenario, the issue of the “local” and “global” dimensions has been crucial to the practice of the industrial design, in relation to its social, cultural and economic role.

It is based on case studies developed by Ono¹ within the home appliances field, in the design units of Brazilian Electrolux S.A. and Multibrás Home Appliances S.A., which have been positioned as the major home appliances producers in Brazil. These companies are subsidiaries, respectively, of multinationals Electrolux (whose headquarters is in Sweden), and Whirlpool (whose headquarters is in USA), which are presently the world’s major home appliances producers.

The design areas of those companies have been representative in the Brazilian design scenario, and the experiences of changing from national companies to multinational ones, in the 1990’s, bring an important contribution to the analysis of the vision and the practice of the designers in relation to the question of cultural diversity in the “local” and “global” dimensions, as well as to the understanding of the cultural diversity as a strategic source for designing “pleasurable and competitive products”.

2. Methodology/Method

The adopted methodology is inserted in the interpretative paradigm, which proposes the description and interpretation of the world’s phenomena within a subjective epistemological approach, which considers that the truth is relative within a context where facts and values are intrinsically related, conjoining the historical and social-cultural dimensions where we have been inserted and our vision about the world. [12]

The research follows a qualitative approach, and is based on a “holistic vision of the phenomena”, which means that it takes into account the group of components of a situation, “in their interactions and mutual influences” (André, 1995 : 17)[1].

The adopted methodology guides the development of the research about the importance of considering cultural diversity in industrial design, in relation to *symbolical*, *practical* and *technical requirements* of products.

The above-mentioned small-scale research was developed based on an intentional sample, which comprises individuals whose experiences are considered relevant.

The qualitative approach was applied in this research through semi-structured interviews with Brazilian Electrolux’s and Multibrás’s designers. Those interviews were based on a range of questions, which were grouped into five main categories: 1) The perspective of designers about the question of cultural diversity in the industrial design; 2) Markets where the multinational corporation has been active and the consumers’ profile; 3) Position and

¹ The case studies mentioned in this paper were developed by Ono, at Master Course of Post-graduation Program in Technology, from Federal Center of Technological Education of Paraná [14], oriented by Professor Doctor Marília Gomes de Carvalho, and take part of a wider research that has been developed by Ono at Doctorate Course of Post-graduation Program in Architecture and Urbanism from Faculty of Architecture and Urbanism of University of San Paulo, oriented by Professor Doctor Maria Cecília Loschiavo dos Santos.

general organization of the design activity within the multinational corporation; 4) Requirements of products (symbolical, practical and technical), cultural diversity and industrial design; 5) Design of imported products and cultural diversity.

The interviews with designers (named in the research as Interviewees A, B, C, D, E, F, G, H, I e J, from Electrolux, and Interviewees K, L, M e N, from Multibrás) were conducted from 1998 to 2001, in the design units of the companies. They were registered by cassette recorder, trans-written, and interpreted.

An iconographic research about home appliances was also conducted, in order to verify and illustrate the case studies, which are concentrated in the last decade of the 20th century, when the process of globalization was intensified.

3 Results and discussions

3.1 The perspective of designers about the question of cultural diversity in the industrial design. Case studies within the home appliances field

The process of the commercial opening in Brazil in the 1990's, within the context of the globalization, incited the international competitiveness, and several Brazilian home appliances companies were incorporated by big multinational corporations.

Refripar Paraná Ltda - Refripar (second home appliances producer in Brazil) was incorporated by multinational corporation Electrolux in 1996, thus constituting Brazilian Electrolux, and Multibrás Eletrodomésticos S.A. (major home appliances producer in Latin America) was acquired by multinational corporation Whirlpool in 1997.

Such acquisitions have brought significant implications to work organization, and to product development, highlighting the importance of considering the question of cultural diversity in the industrial design.

In the beginning, Brazilian Electrolux's and Multibrás's design areas suffered the risk of being disintegrated, with their work being absorbed by the design centers already in existence at Electrolux and Whirlpool corporations. Nevertheless, mainly because of the competence of the design areas of Brazilian subsidiaries in developing products which were appropriate to regional cultures and markets (which was confirmed by sales results and market researches that made clear the better acceptance by consumers of national products, in comparison to imported ones), they were kept in activity in Brazil, and even became regional design centers, which have been responsible for developing products for South and Latin America.

Multibrás's General Design Manager, who experienced the condition of a national company becoming a multinational one, reports that:

... at a first moment, I thought that our Design area would be closed. [...] the first thing that they questioned me was if it would be possible to bring design projects from Europe, because they already had a design area there. Thus, I developed some very strong work to show that this was impossible, because there is a very big cultural distance between us. Despite the fact that we are all a little bit descendants of other peoples, mainly from Europe, our present day culture is very different, mainly in what concerns food preparation, and, ultimately, private life habits [...]. And it was interesting to verify over the years, during the 1990's, that, as a matter of fact, a company can only be a market leader if it focuses its products on the regional culture.

Interviewee J, Brazilian Electrolux's Designer, affirms: "we have distinct characteristics, [...] a distinct people, [...and] we must have the competence to evaluate what is good or bad for our market, in order to use what is closest to the ideal, otherwise the design process becomes too constrained". He considers that, if too many procedure standards are established, too many similarities will emerge, and we lose in terms of diversity.

Electrolux's and Multibrás's designers emphasize the need to differentiate product design directed to different markets, although there is, in general, a vision that delimits the cultural diversity to the concept of "nations", mentioning, for example, the "Brazilian", "German", "Italian", "Japanese", "North-American" design, amongst others. This causes that, in many occasions, one conforms to stereotypes, due to the generic nature of the definitions.

Brazilian Electrolux's Design Center Director reminds us that Europe "has several cultures inside the continent", and that the same occurs in Brazil, a country where the particularities of consumption habits are very strong, although everybody speaks the same language.

"There is a very big cultural and market difference even" between Argentina and Brazil, which are neighboring countries, and, in the case of the United States and Europe, "it is much more evident", as stated by Interviewee I.

Multibrás's designer and Marketing and Development of New Products Manager emphasizes the importance of the market research. In his opinion, it is exactly the deeper knowledge about the consumer that makes the product of the company "different from an imported one". In other words, "the protection of the market is given by the knowledge about the consumer being as comprehensive as possible".

According to the Brazilian Electrolux's Design Center Director, there are differences between Electrolux's product design developed for the European, Asian and Latin-American markets. Nevertheless, the diversity of products, which have been developed for certain markets due to cultural particularities, co-exists with the interchange of components, adaptations and products that have been directed to the global market, as in the case of vacuum cleaners, for instance.

Electrolux has worked with some lines of design, and has adopted a division that is more based on brands than on regions. Such differentiation of brands has defined lines of design "with different styles, for several consumer profiles", he attests. And, in the case of the Brazilian and South-American markets, the product design was, at first, inserted in the "Alpha" line, taking into account cultural diversity, adequacy to existing products, as well as the necessity of strong aesthetical appeal, functionality and low cost. (Figure 1)



Figure 1 - General guidelines for Electrolux's Alpha Line's Design
Source: Adapted by Maristela M. Ono from Workflow of Brazilian Electrolux's Design Center, 1999

The design lines have been reviewed by Electrolux's Group due to its expansion, and, according to Interviewee E, there is not a clear definition about what is an "Electrolux's design".

Brazilian Electrolux's Design Center Director infers that, in spite of all markets of European brands having been comprised by Alpha line, for example, "there are things that must be respected in each market". As a result, besides being divided into Design Centers, Electrolux's design structure subdivides the latter into Design Offices, such as, for example, those from England and Singapore, amongst others, which are local offices that work separately, in order to respect the existent differentiation between the various markets.

According to the Manager of Multibrás's Refrigeration Area, Interviewee L, Whirlpool has, until now, positioned the design in regional markets, in spite of searching for a technological equalization. Whirlpool has not

established corporate *guide-lines* to be followed by the companies that belong to it. It has limited its interference in the sense of accelerating processes, optimizing resources, and earning more.

Multibrás, as Electrolux, has been working based on the strategy of interchanging components. Interviewee K explains that the company produces a “basic module” for all Latin America, “specific distinctions” being added to it according to particularities of specific markets, “in terms of sizing, features...”, except when the sales volume is too small. In this case, a selection from a range of products of the company is done, considering the one that is more adequate to a specific market.

In Brazil, both Multibrás and Electrolux have not differentiated their products, according to more specific characteristics and needs of the internal markets of the country. This could be done, in the opinion of Brazilian Electrolux’s Design Center Director, based not only on price and appearance, but also on practical habits, which vary, such as in the case of refrigerators, for example, due to differences in terms of eating habits and climate, amongst other aspects.

Emphasis must therefore be given to the importance of developing researches about the question of cultural diversity in the industrial design, taking into account that both companies and designers do not know very clearly yet “up to what point a product is a global product, and where it begins to be a product that is adequate to the different cultures”, as attests Interviewee F.

3.2 The expression of cultural diversity in the industrial design. Case studies within the home appliances field

Despite the limitations imposed by strategies of rationalization of the production, based on the standardization and interchange of components and products, there is an evident need to express cultural diversity in design so as to cater for specific symbolical, practical and technical requirements.

The cultural diversity has been manifested, for example, in people’s preferences in terms of formal configurations, colors and textures, types of components, safety systems, energy sources, and graphic information, as well as those of sizing and durability of products, amongst other aspects.

Technical solutions have not in general presented sizeable variations between markets, mainly due to partnerships, as well as to there being more and more common suppliers of raw material and technology between companies. Nevertheless, because of certain particularities, which demand some consideration, types of materials, finishing and production processes, amongst other aspects, have varied.

According to Interviewee B, the German consumer, for instance, is experienced and rational in the purchase act, and demands a “robust” and “rational” product, “without any traces of ostentation”, “...any exaggeration, nor anything missing”. He exemplifies that AEG² products are “like a block; they have nothing emotional...” On the other hand, Brazilians are “very impulsive”, when they are buying a product; [...] they have no rationality. Therefore, one usually aggregates “some symbolic appeals” in the products, such as the “glass lid” that covers the upper area of cookers, and also, in some cases, the area of command buttons, for example. The “glass lid” is, according to Interviewed A, actually an “emotional” need in Brazil, differently from most of European countries and the United States, for instance.

According to Interviewee L, the products remain the same for about 20 years in the United States, whereas in Brazil Multibrás changes its products every five years. “We make ‘thousands’ of face-liftings in the products”, he states.

² AEG was originally a German company. After being incorporated by Electrolux Co., it became one of its brands.

The type of graphic design that is used in the communication of the functions of products must also vary, according to the culture of each social group for whom they are destined.

Interviewee G relates that, due to the fact that Brazilians do not like and do not usually read user manuals, Brazilian Electrolux's Consumer Service asks designers to put the as much information as possible in the control panel of the washing machines and microwave-ovens, amongst other products. "... the reading must be fast, because the person is cooking, and won't stop just to read the manual. So, there must be a command button for roasting meat, another one for popcorn, another one for pasta, etc. It is no use at all to put '1 minute', '2 minutes', '3 minutes'..."

One can easily see the difficulty that Brazilian people have to interpret pictograms of some Swedish products, as Electrolux's "Heatwave" microwave-oven, for example, due to their distinct sign repertory, and because they simply do not have the habit of reading manuals of instructions. Interviewee C adds that, besides that, the type of information must be related to the type of eating habits, which varies between different cultures. **(Figure 2)**

In Brazil, there is a significant preference for the "Top-Load" washing machines in comparison to "Front-Load" ones. The opposite occurs in Argentina and in European countries in general. Interviewee I affirms that "... in Brazil, people have kept the idea that a washing machine must be big, robust, heavy, made of steel, and that clothes should be loaded from the top", like the American ones; "... the market demands this type of machine".³ **(Figure 3)**

Another particularity that we can observe is that most companies have introduced a glass window on the lid of the Brazilian washing machines, because Brazilian users usually like to see the machine functioning, and in the past some of them even used to override the safety system that stops the machine whenever the lid is opened. **(Figure 3)**

The sizing of products also varies, according to different markets. In Europe, for instance, there are some narrower models of washing machines (some of them are 400 mm wide) **(Figure 4)**, because they are placed, in many cases, inside bathrooms, which usually have relatively small areas. On the other hand, in the case of Brazil - where many houses have



Figure 2 - Details of command panels of microovens: Panasonic "Inverter" (from Brazil) and Electrolux "Heatwave" (from Sweden) - Source: Photo by Maristela M. Ono; Electrolux's Catalog, 1997



Figure 3 - Brazilian Electrolux's washing machine - Source: www.electrolux.com.br, access on Feb. 7th 2003

³ Brazilian Electrolux, for instance, presently offers nine "Top-Load" models, and only one "Front-Load" one (Information available at www.electrolux.com.br; accessed on April 29th 2003), and Multibrás offers twelve models, all of them "Top-Load" ones (Information available at www.multibras.com.br; accessed on April 29th 2003).

According to the Multibrás' Design General Manager, Front-load washing machines represents only 6% of the Brazilian market share, whereas in Argentina the opposite occurs.

“service areas”, washing machines being usually placed there, or, in the absence of “service areas”, outside the house - models are usually larger (**Figure 3**). The narrowest model of Brazilian Electrolux, for example, is 590 mm wide, and the narrowest model of Multibrás is 560 mm wide.

North-American products, such as the Side by Side, are normally “immense”, according to Electrolux and Multibrás Brazilian designers.

Interviewee L affirms that Multibrás has been very careful when importing them, because they “normally are more than 80 cm in width”, and usually “don’t go through doorways” of Brazilian houses.

According to Interviewee D, one must adapt buildings and houses to be able to install a product such as Side by Side in a Brazilian house or apartment, which makes it difficult for this kind of imported product to be accepted in this country.

Besides problems related to sizing, the Side by Side have an ice-maker that caters for the North American cultural specificity, which is distinct from the Brazilian one, as sustains Interviewee A. In Brazil, people usually leave drinks to cool in the refrigerator, and, because of that, they do not add as much ice to them as in the United States. “Brazilian people inclusively say that if they add too much ice to drinks, they become ‘watery’”. In her opinion, “bringing in a refrigerator that has an ice-crusher in the door” is culturally a question of “imposing a habit that Brazilian people simply don’t have”.

Examples like those mentioned in this paper emphasize the importance of considering cultural diversity in the industrial design, as much as from the perspective of catering for people’s needs and yearnings, as in terms of competitiveness strategies for companies.

4. Conclusions

The industrial design is co-responsible for the development of a wide range of products, which have been brought about within societies along history. We lead our lives surrounded by artifacts that have been made available to us, and that contribute to shape our lives. In this context, design establishes, in a cultural way, a vast array of different possibilities, constituting symbolical signs that bring meaningfulness to social relations, as well as references to people’s identities.

Objects and societies shape and influence each other in a dynamic relation, within the process of the material and symbolical construction of the world. From this point of view, we can understand that the designer - as one of the mediators in the construction of values, yearnings, thoughts, as well as in the satisfaction of individuals’ needs - must join together his creative attitude within the complex web of functions and significances, where perceptions, actions, and relations are interlaced with each other, in the search for developing products that cater for people’s needs and yearnings, and promote the improvement of the quality of life of society.

Emphasis must be given to the participation of design in the competitiveness strategies of companies and as an instrument for the accumulation of capital. Thus, within the unequal, plural, dynamic and contradictory context of globalization - where forces both directed to homogenization and standardization (intensively promoted by



Figure 4 - Italian Zanussi’s washing machine
Source: www.zanussi.com, access on March 21st 2003

technical processes), and to fragmentation and diversification co-exist - we can understand that the role of the industrial designer is determining in the development of industrialized goods based on the catering for needs, and on the respect for cultural identities of individuals and social groups.

Rationalization strategies of production have promoted the standardization of products and components, leading to the development of *commodities*, for example, which, in turn, have conducted to a competition based on prices, taking into account that qualitative differences of products are now very faint.

In the case studies conducted at Brazilian Electrolux and Multibrás, we can verify the co-existence of forces both directed to diversification and standardization in the industrial design. This fact confirms Levi-Strauss's [10] (amongst others) understanding about the existence of humankind as a process that is essentially contradictory.

It is therefore necessary to have a clearer understanding about the role of the industrial designer - facing the strategies of production that comprise the use of global platforms and modularization, with basic components and internationally standardized central designs, and with certain differentiations directed to national and regional markets - considering that the interference of the designer in the development of products can be more or less profound, depending on the level of autonomy that is granted by corporations for designers to act, as well as on the way requirements of products are considered in the diverse contexts.

It is worth emphasizing the need to avoid the promotion of consumerism, the qualitative degradation (by "price wars" between *commodities*, for example), as well as superficial tunings to specificity of local markets.

Designers' reports presented in this paper emphasize the cultural diversity as a strategic source for designing pleasurable and competitive products, taking into account that, on the one hand, it comprises elements which make possible to more widely express identities of individuals and social groups, contributing to a better understanding and catering for people's needs and yearnings, according to their characteristics and particular contexts where they live. And, on the other hand, the cultural diversity reveals elements that can promote the competitiveness of products, through qualitative differentiations.

There is a wide range of possibilities that still have not been sufficiently explored in product design, such as its focusing on more specific internal markets of each region and country, where it has usually been treated in a more generic way, in terms of catering for symbolical, practical and technical requirements.

In this sense, emphasis is given to the need for design education, research and practice to be more attentive to the question of cultural diversity, in the search of a better understanding about people's characteristics, needs and yearnings, as well as of the improvement of the management of design within the sphere of action of national and multinational organizations.

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