

DO MEXICAN DESIGNERS HAVE EMPATHY WITH SMALL AND MEDIUM ENTERPRISES STRATEGIES AND MARKET NECESSITIES?

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ABSTRACT

This work focuses on the empathy that Mexican designers have with the strategies of the firms and the necessities of the market. Mexico, as another new industrialized country, is experiencing a massive entrance of products/services within its market. Indeed, most of these products/services go beyond the ideas and the capacity of national companies to produce and to compete. In addition, the Mexican society has evolved its consuming behaviour moving from purchase based on cost to purchase based on supra-functional needs. However, it is important to highlight that 60% of its population lives in poor condition with less than \$1 per day. Therefore, using three exploratory case studies was examined whether Mexican designers are able to fulfil the aims of the firms and the requirements of the market. The results emphasizes that designers satisfy mostly the objectives given by the firm, but they underestimate the needs of the customers.

Keywords: SMEs, strategy of the firm, market necessities, design empathy, Mexico

INTRODUCTION

Most of the design curricula in the world based its objectives on satisfy the necessities of the industry and, therefore, the necessities of the nation. Hence, it is required a deep understanding of both in order to train future designers with proper techniques, tools and methods to face the continue demands of the market. In Mexico, designers do not have the knowledge to help Small and Medium sized enterprises (SMEs) and satisfies the necessity of the market. Consequently, few times designers became those mavericks that add value to the final product/service, and improve the performance of the company. This means that there is a low empathy between designers, strategy of a SMEs, and market.

MEXICO

Mexico is geographically located in the north part of the American Continent. Its boundaries adjoin in the north with United States of America, in the south with Belize and Guatemala, and in the west and east with the North Pacific Ocean and the Gulf of Mexico. It has a rich history that dates back to 1,000 B.C. when old civilizations such as Olmecs, Mayans, and Aztecs used to rule the different regions that comprised the territory. Mexican culture suffered a clash when Spaniards conquered the region in the 15th century, and three centuries had to pass in order it gained its independency. Even, the Mexican culture suffered a syncretism on its system of beliefs during the Spanish control, it is believed that it has been more affected by the American way of life. As stated by Huntington (1997), during the Cold War, Mexico was considered as a torn country because it was experiencing difficulties dealing with the cultural exchange with United States of America. This phenomenon was more apparent when it signed the North American Free Trade.

Mexico is a country rich on natural resources (table 1) and in where 109,955,400 inhabitants live, distributed in 31 states and a federal district. It focuses its politics and economy on the exploitation of its resources instead of investing on activities that generate value in the industry. Thus, its economy still based on a mixture of modern and outmoded industry and agriculture, which is increasingly dominated by the private sector. The World Economic Forum (2008) stated that the Mexican competitiveness has been declining in the last decade because it still facing problems on upgrade infrastructure, modernize labour laws, reduce poverty, and create jobs.

Table 1 Basic Facts of Mexico

Basic Facts	Data
Land Area	1,972,550 sq Km
Exchange rate (\$)	13.8 Mexican pesos
Official Language	Spanish, & 291 indigenous languages
Natural Resources	Petroleum, silver, cooper, gold, lead, zinc, natural gas, & timber
Free Trade Agreements	12 agreement with over 40 nations

2.1 Small and Medium Enterprises in Mexico

It is recognised by diverse Economical departments and organisations (BERR, 2008; EU, 2008; IMD, 2008; METI, 2008; WEF, 2008; CEPAL, 2006), the relevance of SMEs in the industrial development of nations. It is common on their reports the emphasis of SMEs as a source of employment; an important player on the high rate of technological change; a promoter of innovation; a natural contributor for partnership; and a tool to achieve and retain competitive advantage. However, there is not an agreement about the determinants that dictates the definition of SMEs.

Mexico has an official definition published on the Federal Official Diary (DOF) in 1999 after five year of being signed the NAFTA. This definition highlights the importance of two variables, number of employees and the economic sector of the enterprise, to define SMEs (Table 2). National Financial (NAFIN) launched, in 2004, an on-line resource for entrepreneurs in where it covered different issues about SMEs. This on-line resource provides a definition that focus on the number of employees is lower in each economic sector, but it also enhanced the importance of certain qualitative variables. Those qualitative factors are: the owner of the firm controls all the positions, the business is family ruled, it is financially independent, loose structural organisation, and their products/services are oriented to certain niche. This definition considered the evolution of Mexican business and fine-tuned the variables to better assess an accurate picture of SMEs. Consequently, for the purpose of this research, SMEs are those businesses that employ between 11 to 250 people, are financially independent, manage by the owner with none or loose organisational structure, and close relationship between employer and employees.

Table 2 Descriptions of the Micro, Small, Medium and Large Sized Enterprises

Size	DOF			NAFIN		
	Industry	Commerce	Service	Industry	Commerce	Service
Micro	1 to 30	1 to 5	1 to 20	1 to 10	1 to 10	1 to 10
Small	31 – 100	6 – 20	21 – 50	11 – 50	11 – 30	11 – 50
Medium	51- 250	21-100	51 – 100	51- 250	31- 100	51- 100
Large	> 251	> 101	> 101	> 251	> 101	> 101

According to the National Institute of Statics, Geography and Informatics (INEGI, 2004), small enterprises represent the second largest number of businesses with 88,122 firms registered within the Mexican market (Table 3). Furthermore, the majority of enterprises concentrated on the industry sector followed by the service and commerce sector. However, the Mexican Ministry of Economy (2001) stated that in the universe of SMEs there is not relevance in which industry they are allocated because they are mostly specialised on traditional areas and low technology processes. Most of them suffer from low level of entrepreneurship; lack of information on business and market; lack of tools for technology and innovation; inaccessible financial support; low level of employees' skills; low level of research and development; no investment on design capabilities; and no interest on producing own products. As a result, these firms have narrow possibilities of regional development because their products have low quality and obsolete design.

Table 3 Number and sector allocation of Micro, Small, Medium and Large Firms in Mexico

Size	No of Firms	%	Industry	%	Commerce	%	Service	%
Micro	2,722,365	95.7 %	310,118	90.1%	1,408,564	97.6%	896,179	95.5%
Small	88,112	3.1 %	22,739	6.6%	25,500	1.8%	35,586	3.8%
Medium	25,320	0.9 %	8,228	2.4%	7,294	0.5%	3,724	0.4%
Large	8,474	0.3 %	3,033	0.9%	2,318	0.1%	3,083	0.3%
Total	2,844,271	100%	344,118	100%	1,443,676	100%	938,572	100%

2.2 The Mexican Market and its Consumer Behaviour

According to the Mexican Association of Agencies of Research and Opinion (AMAI, 2008), there are six different levels of socio economical status in Mexico that range from rich to extremely poor. Nevertheless, the majority of the Mexican population lives under restricted economic conditions, and just five percent of the total populace have an extremely wealthy life (Table 4). Even though the distribution of the Mexican market differs, there is a constant feature that shares all the socio economical levels, people's needs, wants, and desires. It means that the market must have different options to satisfy the necessities of the customer through different product/services. Table 4 exhibits the characteristics of each socio economical level in Mexico.

Marketing and consumer behaviour literature (Arnold et al., 2004; Assael, 1998; McCracken, 1986) enhance that there are different cognitive processes to decide a purchasing. One of the lines of research stated that the consumer is subjected to a thorough cognitive process in where a product/service is chosen by its price, features of the product, brand, and country of origin, among others. It is also considered that the meaning of products/services go beyond the functional needs such as social, cultural, emotional, aspirational, and spiritual. It signifies that consumers also decide a product/service through emotions. Thus, Mexican designers have to demonstrate that they can fulfil the needs and wants of their local, national and international market and the requirements of the firms.

Table 4 Percentage of the distribution of socio economical level in 2000

Level	%	Income/\$	Characteristics
A/B	0.5%	> \$8500	Possess high levels of education; owners of large/medium firms, general managers, prominent professionals; owners of their properties; & their power of purchase is extremely high; thus, they consume luxury products
C+	4.5%	\$ 8499	Posses specialisations & undergraduate degrees; owners of medium enterprises, managers, independent professionals; owners of their properties; & their power of purchase is high; thus, they buy premium products & few luxury products
C	12.9%	\$ 3499	Posses undergraduate degrees; owners of medium/small firms, teachers, high skilled technicians & workers; owners or rent a place; & their power of purchase is higher than the media; so they consume premium products
D+	23.2%	\$ 1159	Post-graduation jobs & high school degrees; owners of micro firms, civil servants, employees of private firms; live in units of social interest; & their power of purchase is moderate; so they buy basic products & few premium
D	36.9%	\$ 679	High school degrees; taxi drivers, merchant, drivers, messengers; owner or rent a place that has two rooms; & power of purchase is low; thus they consume basic products
E	22%	\$ 269	Elementary school; workers, cleaners, counters, public transport drivers; owner or rent a place that has one room; & power of purchase is low; thus they consume basic products

2.3 Design in Mexico

Even, design in Mexico had been used since the old civilizations epoch –Aztec, Mayan, Olmec-, its academic and practical history began in the 1940's. It adopted the design curricula of Bauhaus and ULM because both were recognisable in the whole world for their results. Later, Mexican Government recognised the benefits of design, and decided to adopt it in order to transform the old techniques and forms of production. Hence, firms would be able to satisfy the necessities of the growing urban inhabitants, and to face the challenges of the external markets and its dynamic movement. However, the basis of the design curricula implemented in Mexico was focused under the development and context of the European society that was far away of the context, lifestyle, and way of thinking of the Mexican society.

In 1961, design was implemented in the curricula of the University because it was just taught at the technical level. This moment represented the cornerstone in the development of design in Mexico. During the 1970's, Mexican government supported design activities in order to increase the number of exportations of its manufacturing. This situation provoked a great peak of the profession providing a formal development of the design area. The following decade represented the decadence of the relationship between design, Government and Industry. Consequently, designers became in charge to promote design activities, and lead the profession to be wide known among the industry. In what respect education, Mexican universities require to update the design curricula because it keeps large part of the old traditions (Bauhaus and ULM), and just few schools have tried to adequate to the necessities of the industry and Government. Therefore, it is important to mention Guijosa and Crespo's (2008) work that concern on the necessity to modernise design in Mexico to relate it more to the social and market needs.

3 METHODOLOGY

The most suitable research methodology, for this study, was the use of multiple exploratory case studies. Due to the objective of this research was to examine the role of designers within a project in small and medium enterprise, and assess whether they have an empathy with the strategies of the firm and market. Data collection was undertaken via semi-structured interviews triangulated with documentation, direct observation, and archival records (ethnographic techniques). Managers and designers were specially directed to answer questions concerned with the use and role of design along their activities. The case studies were selected through a private list registered with the National Council of Science and Technology (CONACYT). The three cases studies were chosen through the follow requirements: [1] being national companies; [2] being small or medium size enterprises; [3] being based on service, manufacture, or commerce industry; [4] being private businesses; and [5] use designers (in-house or external) in any project that leads them improve their performance.

The semi-structured interviews were analysed through division of concepts, and supported with ethnographic techniques such as documentation, direct observation, and archival record. Hence, it was possible to have a clear understanding about the way in which respondents think about their social work, and organizational culture. The design of the interviews had its basis on a checklist developed from different academic and empirical research concern on better assesses projects & processes (BS 7000, Design Atlas, Total Design, Design Agenda, and Design Business).

4. FINDINGS

An overview of three design projects are described in the framework designed in Table 5. This framework addresses the most basic parameters of evaluation within a project. The success variables were adopted from different methods and tools that are already used in develop nations. Indeed, these variables were adopted under the Mexican context and considering the companies own criteria.

Borja de Mozota (2006) claimed that most of the SMEs do not integrate design in to their models because there are two missing links: designers' lack of knowledge of management concepts and of management as a science, and designer's difficulty in implementing a value model in their everyday practices. Oakley

(1990), Jeunaker (2001) and Bruce, et al (1999) mentioned that design projects developed by SMEs are only effective if they are performed by efficient methods of sourcing, briefing, and evaluation. Consequently, using these two perspectives were qualified the empathy with enterprise strategies and market necessities.

Table 5 Design Project Analysis

Project Analysis	Case study 1	Case study 2	Case study 3
Company project	Web page & leaflet	Chassis	Display of shoes
Design resources	External designers	Internal designers	External designers
Goal of the project	Promote the firm	Produce a chassis for a lightweight vehicle prototype	Produce a display for shoes in a store
Broad specification	Web page with extranet & intranet access; facilitate information to the user; clear details of the firm	Good appearance; cheap to produce; fulfil the requirements of quality; use the machinery owned by the firm	Display efficiently shoes; easy to clean, and fix; reduce space
Specifications of the firm	Clear information about the firm; accessible cost	Accessible cost; good appearance; do not change anything of the internal architecture of the vehicle	Display efficiently shoes; enhance the visibility of the shoes; reduce cost
Specifications of the customer	Web site easy to use; concise and clear information about the firm	Attractive design; safety vehicle	Attractive design; allow customers to have access to any shoe display in the shelf;
People in charge	General manager	General manager	General manager
People participating	Designer hired	In-house designers	Designers hired
Time	On time	On time	On time
Cost	On cost	More than expected	Miniscule increase in the cost
Priority	High	High	High
Product cost	Accessible	Accessible	Accessible
Pass/fail criteria	Fail criteria	Fail criteria	Fail Criteria
Observations	The designer in charge fulfils the requirements of the client; however, the customer needs were not fulfilled at all	Designers solved some of the specifications of the firm, and fulfilled some of the customer needs with no to much success	Designers solve the firm's specifications, & poorly some of the customer requirements

4.1 Analysis of the findings

It is important to highlight that the results of this small sample size need to be used with caution because the findings might not be transferable to the universe of Mexican designers and SMEs. From the sample was discovered that two thirds of the case studies reported enough resources to hire in-house designers in order to contribute in the development of new products. It was also clear that the awareness of the general manager about design was crucial to define the way in which it is used and thought within the firm activities. However, there was a preconception about how design can help them to accomplish their aims. This means that companies have a preconceived idea about the results that design can deliver in their business. Other important finding concerns on the way designers work within the company's activities. In-house designers do not have experience on issues concern on business. Therefore, they mainly satisfy the requirements established by the general manager or project manager, and few times consider the desires of consumers. This phenomenon is due to designers' interest on conserve their job through obeying the

desires of the owner of the firm rather than be proactive challenging the way of thought of the firm.

5. CASE STUDIES

Table 5 summarize the key aspects of the semi-structured interviews; nevertheless, it is important to point out some of the experiences of those SMEs used within the case studies.

Case 1 stressed the fact that the general manager (owner) provoked a clash between the results of the designer and his desires. The solution generated by the designers was directed to satisfy mainly the desires of the client (general manager), instead to fulfil the requirements of the customers. This implies that the designer did not use her expertise to combine the satisfaction of the client and the customer, leading the result to be mediocre.

Case 2 emphasised the idea of designers as a quick solution in projects that require a more stylised presentation. The general manager knows about the basic advantages of design; however, he does not use it at its maximum. In the case of in-house designers, they directed their efforts to satisfy both requirements (firm strategies and customer); nevertheless, their capabilities were not enough to fulfil all the necessities. As well as, designers need to increase the awareness of design within the firm, because then it will be possible to move design beyond as a mere physical activity.

Case 3 showed similar results that case one, but the difference relied on the experience of the design consultancy. Designers had experience working for different SMEs; therefore, they are able to defend and support their results in front of the client without changing the requirements of the firm. This infers that designers are more proactive because they deliver value to their clients. Nevertheless, they did not fulfil the necessities of the customer, leading to the result to be mediocre.

6. CONCLUSIONS

The three case studies showed that designers in Mexico do not possess the design thinking, and design management tools that allow them to embrace the strategy of the firm and the needs of the market in a project. On one side, the lack of specialised thinking on management from owners provokes a stance on the development of the firm. On the other side, lack of expertise on design from designers leads to achieve mediocre results in products/services in small enterprises. Both problems affect the perception of the Mexican market about the products/services offered by Mexican firms. Hence, the lack of empathy of designers with the conditions of SMEs, and the necessities of the market provokes a delegation of the area.

REFERENCES

- ARNOULD, E. PROCE, L. & ZINKHAN, G. (2004) *Consumers*. New Jersey: McGraw-Hill
- ASOCIACION MEXICANA DE AGENCIAS DE INVESTIGACION DE MERCADO Y OPINION PUBLICA (2008) Niveles Socioeconomicos de Mexico. [Online] AMAI. Available from: <http://www.amai.org/> [Accessed 3 May 2008]
- ASSAEL, H. (1998, 6th edition) *Consumer behaviour and Marketing Action*. Ohio: South-Western College Publishing
- BORJA DE MOZOTA (2006) The Four Powers of Design: A Value Model in Design Management. *Design Management Review*. Vol 17 No 2 pp. 44-53
- BRUCE, M., COOPER, R. & VAZQUEZ, D. (1999) Effective Design Management for Small Business Design Studies Vol. 20 No 3
- COMISION ECONOMICA PARA AMERICA LATINA Y EL CARIBE (2006) Small and Medium Enterprises Definition. [Online] CEPAL. Available from: <http://www.eclac.org/> [Accessed 21 August 2008]
- DEPARTMENT FOR BUSINESS ENTERPRISE & REGULATORY REFORM (2008). Small and Medium Enterprises Definition. [Online] BERR. Available from: <http://www.berr.gov.uk/> [Accessed 1 August 2008]
- DIARIO OFICIAL DE LA FEDERACION (1999) Small and Medium Enterprises Definition. [Online] DOF. Available from: <http://www.cre.gob.mx/articulo.aspx?id=99> [Accessed 12 August 2008]
- EUROPEAN UNION (2008). Small and Medium Enterprises Definition. [Online] EU. Available from: http://europa.eu/index_en.htm [Accessed 18 July 2008]
- GUIJOSA & CRESPO (2008) El Reto de la Educacion ante el Nuevo Rol del Diseño. *Diseño y Sociedad* 21/08 pp38-43
- HUNTINGTON, S., 1997. *The Clash of the Civilization and the Remaking of World Order*. New York: Touchstone.
- INSTITUTE FOR MANAGEMENT DEVELOPMENT (2008). *IMD World Competitiveness Yearbook* [Online] IMD. Available from: <http://www.imd.ch/research/publications/wcy/index.cfm> Accessed [1 September 2008]

- INSTITUTO NACIONAL DE INFORMACION ESTADISTICA Y GEOGRAFIA (2004). Censo Nacional Economico [Online] INEGI. Available from: <http://www.inegi.gob.mx/est/contenidos/espanol/proyectos/> [1 September 2008]
- JEUKNAKE, B. (2001) Strategic Integration of Design and Innovation: dilemmas of Design Expertise and Its Management. *International Journal of NPD and Innovation Management* Vol. June/July pp. 129-
- MCCRACKEN, G. (1986) Culture and Consumption: A theoretical Account of the Structure and Movement of the Cultural Meaning of Consume Goods, *Journal of Consumer Research* 13 pp. 71-84
- MINISTRY OF ECONOMY, TRADE AND INDUSTRY (2008) Small and Medium Enterprises Definition. [Online] METI. Available from: <http://www.meti.go.jp/english/index.html> [Accessed 19 August 2008]
- MINISTRY OF THE ECONOMY (2001) Pequeñas y Medianas Empresas [Online] METI. Available from: <http://www.economia.gob.mx/?P=756> [Accessed 19 May 2006]
- OAKLEY, M, (1990). *Design Management: A Handbook of Issues and Methods*. London: Blackwell Publication
- WORLD ECONOMIC FORUM (2008) Global Competitiveness Report. [Online] WEF. Available from: <http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.htm> [Accessed 7 July 2008]

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