MICRO, SMALL AND MEDIUM-SIZED BUSINESSES IN JALISCO: THEIR EVOLUTION, AND STRATEGIC CHALLENGES

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ABSTRACT

The business structure in Jalisco, Mexico is primarily composed of micro, small and medium-sized enterprises (SMEs). Thus, it is fundamentally necessary to understand the dynamics, evolution and above all, the strategic challenges of this sector in order to understand the state's economic performance and the possibilities for future development in Jalisco. As a result, this study analyzes the evolution of the SMEs (known as PyME, in Spanish) in Mexico and Jalisco by using data from the Economic Censuses of 1999, 2004 and 2009 as well as sources such as the Mexican System of Business Information (Sistema de Información Empresarial Mexicano, or SIEM, in Spanish). This analysis includes the distribution of companies by sectors and size. It also makes a comparison between the observed trends at both national and state levels, allowing the identification of significant differences in productivity and the challenges that these small and medium-sized companies face as they seek to modernize and consolidate. We also propose a strategy to boost the performance of SMEs. The following variables are included in this analysis: The number of establishments; Gross fixed capital formation; Gross total production; Gross value added census; Personnel employed; Salary levels; and Hours worked.

JEL: L11, L25, M13

KEYWORDS: SMEs, Performance, Development Strategy

INTRODUCTION

In this paper, we study the relevance of the small and medium-sized business (SMEs) in Mexico. Interest in the study of the SMEs is a relatively recent phenomenon, despite the importance of them, for example, in Mexican economy, represent about 99.5% of economic units and generate 66.2% of jobs. Actually, the first scientific publication dedicated to this topic appeared in 1952. However, it was not until the 1970s that the subject began to be included into general economic theory with some autonomy because of experiences like those associated with the Bolton Commission (1971), referenced in Julien [1998]. There was a growing interest in this topic, which clearly manifested itself in the 1980s. This interest was driven by the realization that these businesses were essential to job creation, economic innovation, the development of entrepreneurs and the entrepreneurial spirit, and long-term economic growth [Storey, 1994; Burns, 1996; Julien, 1998]. Nonetheless, it has been widely observed that the success of the majority of these companies comes from their own survival.

In spite of the recognition of the limits and fragility of individual companies within the grouping of SMEs, there continues to be a consensus regarding this sector's economic and social importance. Actually, these types of businesses are the only employment and economic renovation source in many regions [Julien, 1998]. Furthermore, these businesses' vitality, adaptability and flexibility have played a fundamental role in the development of the knowledge and information economy [Lee, 2001]. Thus, understanding SMEs' dynamics in a determined time and space is the key to comprehending how they work, their performance and their development possibilities within a region.

This document includes an analysis of the distribution of companies by sectors and size. It also presents a comparison between the observed trends at both national and state levels, allowing the identification of significant differences in productivity and the challenges that these small and medium-sized companies face as they seek to modernize and consolidate. Additional, we construct economic and social performance indicators of companies by size, comparing data from three economic censuses.

In the following section, we present the theoretical frame of this work, which includes a brief description of the SMEs as an investigation object, including some statistical data. Later, in the empirical section, we will describe the methodology used and we will discuss the reached results. Finally, the conclusions of the investigation appear.

LITERATURE REVIEW

In order to understand small and medium-sized businesses' productivity, it first necessary to ask exactly what type of businesses are they and what are the characteristics that define them. In many environments, the SMEs are considered like young company in the process of growing until it reaches optimal scale, understood in conventional economic thought, as the level where average long-term costs are minimal and the marginal production costs of company inputs is greater or equal to zero. The idea of optimal scale is normally associated with the status of the Large Corporation (LC).

In this perspective, companies are perceived to be black boxes. It is assumed that the basic difference between a small and medium-sized company and an LC is its size and scale. Using this logic, both small and large companies are viewed as similar organizations, which can be equally explained, by the same theories and respond similarly to economic incentives. However, this is not true. In many cases, the small and medium-sized business cannot or does not want to become a LC. Some reasons for this decision may include the life-style preferences of the owners and market characteristics, especially in a niche market dedicated to luxury and exclusivity. Generally, small business behavior is driven by diverse factors that determine its response to environmental incentives. These factors are clearly distinct from those that affect LCs and they affect small businesses differently and with varying impact. Since the small business is actually quite different from the LC, it is necessary to focus on their differences in order to evaluate their impact on small and medium-sized business competitive behavior. This is a complex task because this sector is anything but homogenous; each business is unique and has special characteristics. Thus, it is practically impossible to give a unique definition or to establish a criteria for "smallness" that is adequate for the entire sector [Storey, 1994 and Burns, 1996].

In spite of these limitations, it is necessary to define which organizations can be considered SMEs. Keeping this in mind, researchers from diverse disciplines as well as political and economic organizations have proposed criteria and typologies to define which companies belong in the SMEs rubric to facilitate comparisons and analyses with a common base.

The Bolton Committee created one of the seminal proposals for the development of this study area. This typology uses economic criteria and statistics to define a small and medium-sized business. The economic criteria established to define small and medium-sized business are: 1. the business possesses a relatively small market share; 2. the owners are at least partially actively involved shareholders; 3. business is conducted in a personalized manner and lacks a formal business structure and 4. It is independent in the sense that it is not part of a large company.

The criteria used by the Bolton Committee refer to an organization lacking market power and whose behavior is similar to that of the productive units described in the perfect competition model. Thus, SMEs is incapable of influencing equilibrium prices and more generally, its environment. Nonetheless, these criteria fail to take into account the fact that the small and medium-sized business often exist in niche markets where they can take advantage of a monopolistic situation to influence market prices [Storey, 1994: 9 and Burns, 1996: 3].

The second criterion established by the Bolton Committee is statistical and it defines the size of the organization using diverse quantitative indicators such as return volumes, or number of employees according to the company's business sector. These criteria were created with the intention of facilitating the comparison of SMEs characteristics in distinct countries and regions. However, the fact that there are a small number of employees does not mean that these businesses are a reduced-scale version of the LC. As mentioned above, small businesses have different characteristics and may respond distinctly to incentives than the LC. These differences are related to the level of uncertainty in which a small business operates and its ability to change and innovate [Fong, 2007]. Yet, these characteristics are also affected by the business sector in which they operate and above all, the technology that is utilized.

In light of this situation, it is clear that no individual criterion in and of itself is capable of completely reflecting the complexity of the small and medium-sized business. However, among the diverse definitions explaining the small and medium-sized company, some factors are considered more representative and adequate than others are. Among these criteria, the most commonly used variable is the number of employees. This leads to the definition that was officially used to describe the small and medium-sized company in Mexico until June 2009, which is illustrated in Table 1.

Table 1: Classification of Businesses by Number of Employees

Size	Industry	Commerce	Sector Service
Micro business	0-10	0-10	0-10
Small business	11-50	11-30	11-50
Medium-sized business	51-250	31-100	51-100
Large company	250 or more	101 or more	101 or more

This table shows the classification criteria of the companies used in Mexico until June 2009, which took into account the number of employees and the industry in which firms were located. Source: Sistema de Información Empresarial Mexicano (SIEM), December 2007.

While this definition is simple and facilitates the classification of companies when there is a lack of other information, it is currently viewed as obsolete. It most likely does not reflect the impact associated with the development of new technologies, especially information and communications. These new technologies have allowed the optimal scale of companies to be reduced and for relatively small companies to have similar productivity levels to that of large ones. As a result, the classification of companies based solely on the number of employees was abandoned and sales revenue was added as a new, additional indicator at the end of June 2009, which is summarized in Table 2.

Table 2: Company Stratification in Mexico (from June 2009)

Size	Sector	Range of number of workers	Range of annual sales amount (MOP= Millions of Pesos)	Maximum Combined Limit*
Micro	All	To 10	To $4	4.6
Small	Commerce	From 11 to 30	From $4.01 to $100	93
	Industry and Services	From 11 to 50	From $4.01 to $100	95
Medium	Commerce	From 31 to 100	From $100.01 to $250	235
	Services	From 51 to 100		
	Industry	From 51 to 250	From $100.01 to $250	250
*Maximum Combined Limit = (Workers) X 10% + (Annual Sales) X 90%.				

This table shows the classification criteria of the companies used in Mexico from June 2009 to the present, which in addition to considering the number of employees and the industry in which firms are located, includes its annual sales amount. Source: Diario Oficial de la Federación (Official Diary of the Federation) June 2009.

Here, the size of a company is determined by the score obtained using the following formula: Company Score = (Number of Workers) X 10% + (Annual Sales Revenue) X 90%, which should be less or equal to the Maximum Combined Score for its category. This new definition of the small and medium-sized company means that there are changes in the databases defining and registering their behavior. This will surely allow more complex studies to be carried out, even without differentiating independent companies

from business conglomerates. This is true in spite of the fact that these two types of companies have significantly different behaviors and possibilities. However, due to the period that this study analyzes, the data bases used still correspond to the previous classification.

According to the Economic Census data of 1999, 2004 and 2009 [INEGI, 2012], as can be seen in Table 3, a large majority of the businesses in Mexico were made up of micro, small and medium-sized companies (MiPyME, in Spanish) -in this study, the grouping of SMEs (PyME, in Spanish) is viewed as a relatively small subgroup of the one formed by micro, small and medium sized ones. This is because there are considerable differences between both groups in spite of the fact that they have common traits-. For example, in 1999, 99.81% of all companies in Mexico fell within this category, while in 2004 and 2009; his number remained practically unchanged at 99.53% and 99.57%, respectively. Similarly, these companies were responsible for the majority of employment generation in Mexico. Accordingly, 72% of workers were employed by SMEs in 1999, 63.9% in 2004, and 66.2% in 2009. The Mexican business structure can be seen in detail in Table 3. Here, a comparison is made using the number of companies by size and job creation. This information shows that the average growth during the periods of analysis was 15.6%, while employment growth was an average of 21.7%.

Table 3: Number of Companies by Size and Job Creation in Mexico and Jalisco, 1999-2009

Size	Economic Units			Employment		
	1999	**2004**	**2009**	**1999**	**2004**	**2009**
			Mexico			
Micro	2,672,520	2,853,291	3,536,178	5,315,309	6,228,784	8,414,444
Small	95,669	112,116	143,273	1,939,169	2,255,493	2,818,995
Medium	26,923	25,490	28,576	2,534,339	1,905,706	2,090,330
Large	5,393	14,139	15,982	3,807,944	5,869,111	6,793,065
Total	2,800,505	3,005,036	3,724,009	13,596,761	16,259,094	20,116,834
			Jalisco			
Micro	190,297	201,689	248,930	421,969	497,936	649,644
Small	7,996	9,856	12,109	163,575	198,719	235,879
Medium	1,942	2,091	2,227	182,679	157,028	165,682
Large	157	915	1,097	232,384	365,894	437,940
Total	200,392	214,551	264,363	1,000,607	1,219,577	1,489,145
Jalisco as a Percentage of the National Total						
Micro	7.10%	7.10%	7.00%	7.90%	8.00%	7.70%
Small	8.40%	8.80%	8.50%	8.40%	8.80%	8.40%
Medium	7.20%	8.20%	7.80%	7.20%	8.20%	7.90%
Large	2.90%	6.50%	6.90%	6.10%	6.20%	6.40%
Total	7.20%	7.10%	7.10%	7.40%	7.50%	7.40%

This table summarizes the composition of Mexico and Jalisco business, distinguishing between the number of economic units and employment generation according to the size of companies. Source: Self-elaboration using Economic Census data 1999, 2004 and 2009. INEGI [2012].

In the case of Jalisco, business composition mirrors the national one. In 1999, micro, small and medium-sized companies represented 99.92% of the economic businesses and generated 70% of the employment in the state. In 2004, those percentages were 99.57% and 70% while in 2009; they were 99.59% and 70.6%, respectively. By analyzing the business structure in Jalisco, (Table 3), one can conclude that the structure is a reflection of the national situation including the fact that the rate of growth is similar since economic units were 15.1% while employment grew an average of 22%.

In light of the parallel movement of the national and Jalisco indicators, it is important to analyze the proportion of the total national economy that Jalisco represents as shown above: the number of companies and employment generated. The last section of the table above presents this information and highlights the fact that the total number of companies as a percentage of the national total is 7.1% and the percentage of Jaliscan employment generation is 7.4%. These percentages have been relatively stable over time and for each of the business classifications, except for the case of large corporations. The 1999 to 2004 census data show a significant jump in the in the number of economic units, increasing by 3.6%. Another constant is the concentration of small and medium-size companies having increased participation in Jalisco in terms

of the number of companies as well as employment generation. In both cases, there was an average participation of 8.5%.

By analyzing the information in Table 4 from the Mexican Business Information System [SIEM, 2012], it can be observed that the majority of businesses nationally are located in the retail sector (68.6% of the total). These are the most common type of micro businesses (71%). In the case of micro, small, and medium-sized companies (MiPyME in Spanish), 68.8% belong to the retail sector, 24.3% are part of the service sector and only 6.9% belong to the industrial sector.

Table 4: Companies by Economic Sector and Size in Mexico and Jalisco, 2012

Size	Industry	Retail	Services	Total
Mexico				
Micro	37,418	477,413	155,402	670,233
Small	9,055	13,528	17,599	40,182
Medium	3,282	4,200	1,845	9,327
Large	1,419	1,459	1,648	4,526
Total	51,174	496,600	176,494	724,268
Jalisco				
Micro	3,768	55,000	22,391	81,159
Small	1,090	1,963	2,479	5,532
Medium	310	525	202	1,037
Large	87	136	195	418
Total	5,255	57,624	25,267	88,146

This table shows the division of companies, both in Mexico and Jalisco by economic sector and by size. Source: Self-elaboration using data from SIEM [2012].

The statistics in Jalisco are comparable to the national ones. Here, the majority of companies are part of the retail sector (65.4%), while 28.7% belong to the service sector and only 6% are located in the industrial one. Micro, small and medium-sized companies in Jalisco are 65.5% retail, 28.6% services and 5.9% industrial.

If the proportional distribution of companies at both the national and state of Jalisco levels are compared by size and economic sector, it is clear that the business sectors are analogous to each other. In other words, the economy of Jalisco is a good representation of national economic behavior.

Although "the economy of Jalisco," is frequently referred to in this article, it is important to keep in mind that according to the 2009 Economic Census [INEGI, 2012], 55.6% of companies and 66.8% of employees are located within the four municipalities of the Guadalajara Metropolitan Zone. These municipalities are Guadalajara, Zapopan, Tlaquepaque and Tonala. This is a clear indicator of the importance of Guadalajara Metropolitan Zone to the state's economy.

The distribution of distinct industries in Jalisco is shown below according to area of activity. Using data from the Jalisco State Council of Science and Technology [COECYTJAL, 2010], the most important industrial sectors in the state are shown in Table 5. Here, company size, importance, and their destination markets divide them.

Table 5: Jalisco Business Composition

	Company Size				Destination Market Composition			
	Micro	**Small**	**Medium**	**Large**	**International**	**Guadalajara Metropolitan Zone**	**National**	**Nearby States**
Auto parts	20.0%	40.0%	20.0%	20.0%	27.5%	13.8%	38.8%	20.0%
Capital Goods	14.3%	57.1%	0.0%	28.6%	22.9%	13.0%	47.9%	16.3%
Shoe Industry	18.2%	81.8%	0.0%	0.0%	14.1%	22.6%	41.1%	22.2%
Ceramic Industry	40.0%	40.0%	20.0%	0.0%	0.0%	63.8%	2.5%	33.8%
Clothing	22.2%	55.6%	22.2%	0.0%	17.9%	18.7%	25.9%	37.5%
Construction	40.0%	40.0%	20.0%	0.0%	0.0%	63.8%	2.5%	33.8%
Leather	50.0%	33.3%	16.7%	0.0%	2.9%	70.0%	22.1%	5.0%
Candies/chocolates	14.3%	0.0%	28.6%	57.1%	15.8%	6.7%	65.0%	12.5%
Electronics	42.9%	0.0%	0.0%	57.1%	43.0%	13.8%	32.0%	11.3%
Welding and Machinery	33.3%	66.7%	0.0%	0.0%	15.0%	40.0%	43.8%	1.3%
Rubber and Latex	23.1%	69.2%	0.0%	7.7%	2.7%	46.4%	31.9%	19.0%
Jewelry	81.8%	9.1%	9.1%	0.0%	1.2%	35.6%	49.0%	14.1%
Corn	40.0%	20.0%	0.0%	40.0%	5.4%	60.0%	16.6%	18.0%
Furniture	40.0%	40.0%	20.0%	0.0%	0.0%	63.8%	2.5%	33.8%
Plastics	33.3%	33.3%	0.0%	33.3%	1.7%	17.7%	70.0%	10.7%
Salsas	77.8%	22.2%	0.0%	0.0%	1.4%	38.4%	7.0%	53.1%
Software	40.0%	26.7%	13.3%	20.0%	19.6%	30.9%	39.1%	10.4%
Tequila	0.0%	75.0%	0.0%	25.0%	21.5%	30.0%	14.8%	33.8%
Textile	0.0%	100.0%	0.0%	0.0%	0.0%	36.7%	38.3%	25.0%
Average	33.22%	42.63%	8.94%	15.20%	11.19%	36.09%	31.09%	21.66%

This table shows the division of Jalisco companies among the main branches of industry, differentiating its size and target markets for their products. Source: Self-elaboration using data from COECYTJAL [2010].

The table shows that the electronics industry dedicates the greatest percentage of its production to the international market. While the majority of businesses in this field are large companies, it is interesting to note that close to 43% are micro businesses. The auto part, capital goods, tequila and software industries are also active in foreign markets. In contrast, international market participation is insignificant or practically null in other industries. These are the textile, furniture and construction industries. Overall, the majority of the industries shown in Table 5 have limited participation in foreign markets. This is demonstrated by the fact that only 11.19% of the total sales of these industries are to foreign markets.

Large companies dominate two of the industries: electronics, and candy and chocolate. They are followed by the corn industry although LCs are not a majority. On the other hand, the shoe, construction, jewelry and furniture industries have almost no large companies. One can observe the percentages of the most emblematic of these sectors within the total number of exportation companies in Jalisco. This allows the reader to observe the concentration levels of exportation companies in Jaliscan industries. This information is presented in Table 6.

Table 6: Percentage of Exportation Companies in the Guadalajara Metropolitan Zone by Industry

Industry	Percentage of Total Companies*
Tequila	4.6%
Shoe	4.9%
Plastics	6.1%
Jewelry	7.6%
Software	2.3%
Electronics	4.9%
Auto parts	5.3%
Accumulated	**35.7%**

*This table shows the industries in which are concentrated the majority of exporting companies of Jalisco. *The remaining percentage of exporting companies can be found in the service sector or in areas that are highly atomized. Source: Self-elaboration using data from SIEM, consulted May 12, 2010.*

As can be seen, the context of SMEs in Jalisco is complex and challenging, however, within the sector of micro, small and medium-sized businesses, there is a subgroup of companies that have the potential to grow and be highly successful. These companies could obtain a competitive advantage allowing them to achieve

above-average results. Gazelle companies [Feindt et al, 2002; Hernández et al, 1999 and Julien et al, 2001], technology companies [Barranco, 2001; Fariñas et al, 2006; González, 2000-2003; León, 2000 and Simón, 2003], and *born global* companies [Rialp et al, 2005] are three types of businesses that have been high performing and which we will discuss later.

DATA AND METHODOLOGY

It is necessary to analyze the national and Jaliscan economic and social impact indicators for this sector in order to deepen the understanding of the dynamics, evolution, and above all, strategic challenges that these businesses face. The national data help to give a reference point for similar situations (violence, epidemics, etc.) which give a better context in which to evaluate the relative performance of the Jaliscan small and medium-sized business sector.

In order to analyze the performance of small and medium-sized businesses, it was decided to utilize the methodology proposed by De la O et al [2007]. This methodology is carried up by the construction of indexes and allows diverse dimensions within a group of related variables to be isolated. This method has been utilized in diverse studies recognized at the level of national competitive analyses. It has also been used to calculate the Municipal Marginalization Index of the National Population Council (CONAPO).

This technique was developed using two components that are identified analytically as *economic participation* and *social participation.* One reason for this choice of methodology is that it permits the results to be compared. This is especially relevant because De la O's work et al [2007] was done during the period of 1998-2003. In addition, it is useful to put small and medium-sized companies into separate categories because there are significant differences between the two. Furthermore, it was necessary to substitute the variable of personnel employed in relation to the economically active population used in the above-mentioned work with hours worked. This was a direct result of the characteristics of the 2009 Economic Census.

The term *economic participation* refers to differences in the economic structure due to size, wealth creation and growth potential. Note that the presented variables also correspond to the available statistical information all the measurement units utilized. The selected variables for *economic participation* are: 1. The number of establishments; 2. Gross fixed capital formation; 3. Gross total production; 4. Gross value added census.

The variables for *social participation* include job creation, general employment opportunities, salaries and wages. For this reason, the following variables were selected: 5. Personnel employed; 6. Salaries and Wages; 7. Hours worked.

Based on this model, the following index for each variable can be applied:

$$\Sigma(x - \mu)^2$$

(1)

$$\sigma^2 = \Sigma(x - \mu)^2 / N$$

(2)

$$Z = (x - \mu)/\sigma$$

(3)

Where:
   $x = $ The percentage of observed units by each type of company in relation to the total.

μ = The average of the total observations of *x*.
Z = Participation Index for each variable.
  The sum of the indexes for each variable is used to create a general economic and social index.

The results of the economic participation index and the social participation index are shown below in Table 7 and Table 8, respectively:

Table 7: Economic Participation Index in Mexico and Jalisco (1999-2009)

			Micro		Small		Medium		Large	
			%	Index	%	Index	%	Index	%	Index
		Establishments	95.38	1.50	3.52	-0.71	0.72	-0.781	0.38	-0.79
		Gross Fixed Capital Formation	6.84	-0.79	7.42	-0.77	12.45	-0.59	73.30	1.56
	Mexico	Gross Total Production	10.06	-0.77	9.13	-0.81	15.24	-0.55	65.57	1.57
		Gross Value-Added Census	13.69	-0.72	11.47	-0.83	15.61	-0.62	59.23	1.55
2009		Participation Index		**-0.77**		**-3.12**		**-2.55**		**3.89**
		Establishments	94.5	1.73	4.29	-0.52	0.80	-0.60	0.36	-0.61
		Gross Fixed Capital Formation	9.67	-0.67	9.63	-0.67	15.95	-0.39	64.01	1.72
	Jalisco	Gross Total Production	12.98	-0.71	12.32	-0.75	20.80	-0.24	53.50	1.70
		Gross Value-Added Census	16.30	-0.58	13.87	-0.748	19.20	-0.39	50.04	1.72
		Participation Index		**-0.23**		**-2.68**		**-1.62**		**4.52**
		Establishments	95.63	1.50	3.241	-0.72	0.76	-0.78	0.37	-0.79
		Gross Fixed Capital Formation	13.77	-0.72	11.88	-0.82	14.81	-0.67	59.54	1.54
	Mexico	Gross Total Production	13.77	-0.71	10.82	-0.86	16.46	-0.57	58.95	1.56
		Gross Value-Added Census	18.93	-0.55	12.47	-0.95	15.77	-0.75	52.84	1.50
2004		Participation Index		**-0.48**		**-3.33**		**-2.77**		**3.81**
		Establishments	94.50	1.50	4.22	-0.70	0.93	-0.78	0.33	-0.80
		Gross Fixed Capital Formation	13.30	-0.80	13.80	-0.77	17.47	-0.56	55.41	1.57
	Jalisco	Gross Total Production	15.10	-0.76	13.91	-0.84	19.81	-0.45	51.15	1.59
		Gross Value-Added Census	21.90	-0.50	16.74	-0.97	18.25	-0.83	43.14	1.46
		Participation Index		**-0.55**		**-3.27**		**-2.63**		**3.82**
		Establishments	95.91	1.51	3.08	-0.72	0.71	-0.78	0.31	-0.79
		Gross Fixed Capital Formation	16.33	-0.55	7.14	-0.99	16.48	-0.55	60.05	1.55
	Mexico	Gross Total Production	22.75	-0.33	10.89	-1.12	16.74	-0.73	49.62	1.45
		Gross Value-Added Census	26.16	-0.14	12.72	-1.18	15.95	-0.93	45.17	1.32
1999		Participation Index		**0.48**		**-4.01**		**-2.98**		**3.53**
		Establishments	95.19	1.50	3.77	-0.71	0.75	-0.78	0.20	-0.79
		Gross Fixed Capital Formation	23.75	-0.27	8.55	-1.15	15.16	-0.77	52.55	1.42
	Jalisco	Gross Total Production	33.43	0.54	11.57	-1.45	17.65	-0.89	37.36	0.90
		Gross Value-Added Census	29.59	0.22	12.28	-1.39	18.43	-0.82	39.70	1.17
		Participation Index		**2.01**		**-4.70**		**-3.26**		**2.69**

Source: Self-elaboration. This table shows the estimated economic participation index by company size, both for Mexico to Jalisco, based on the variables described.

These indicators prove that the national and Jaliscan impact of micro, small, and medium-sized companies was reduced during the analysis period. Conversely, large company participation and impact increased even while their actual number was reduced. This trend can clearly be seen during the period of 2003-2009. The Participation Index totals for Jalisco considerably surpassed the nation ones.

There was a similar trend for social impact: SMES lost their impact in the face of large and micro ones. Nevertheless, it is important to highlight the fact that micro businesses increased their impact due to personnel employed and hours worked but not in terms of salaries and wages. This can be observed in the fact that there was no improvement in the marginal labor productivity rate. This allows one to assume that

this growth was associated with the need to develop self-employment as opposed to an increase in business opportunities.

Table 8: Social Participation Index in Mexico and Jalisco, 1999-2009

			Micro		Small		Medium		Large	
			%	**Index**	**%**	**Index**	**%**	**Index**	**%**	**Index**
2009	Mexico	Personnel Employed	45.07	1.65	15.01	-0.82	15.50	-0.78	24.42	-0.05
		Salaries and Wages	11.72	-0.82	14.37	-0.66	21.49	-0.22	52.42	1.69
		Hours Worked	25.30	0.05	20.40	-0.81	20.10	-0.86	34.21	1.62
		Participation Index		**0.88**		**-2.28**		**-1.86**		**3.26**
	Jalisco	Personnel Employed	45.96	1.70	16.81	-0.66	15.30	-0.79	21.93	-0.25
		Salaries and Wages	15.93	-0.93	19.42	-0.57	23.43	-0.16	41.22	1.67
		Hours Worked	27.85	0.93	23.90	-0.36	20.47	-1.48	27.78	0.91
		Participation Index		**1.69**		**-1.60**		**-2.42**		**2.33**
2004	Mexico	Personnel Employed	41.58	1.58	15.12	-0.94	16.78	-0.78	26.53	0.15
		Salaries and Wages	10.91	-0.87	14.50	-0.65	22.38	-0.16	52.22	1.68
		Hours Worked	44.64	1.65	15.02	-0.84	15.89	-0.76	24.46	-0.05
		Participation Index		**2.36**		**-2.42**		**-1.71**		**1.77**
	Jalisco	Personnel Employed	43.27	1.71	17.73	-0.68	17.25	-0.73	21.75	-0.30
		Salaries and Wages	15.12	-1.20	20.39	-0.56	27.28	0.28	37.21	1.48
		Hours Worked	45.59	1.72	17.21	-0.65	16.47	-0.71	20.74	-0.36
		Participation Index		**2.23**		**-1.89**		**-1.16**		**0.82**
1999	Mexico	Personnel Employed	41.94	1.60	15.34	-0.91	16.66	-0.79	26.06	0.10
		Salaries and Wages	11.08	-0.91	15.03	-0.65	23.48	-0.10	50.42	1.66
		Hours Worked	42.13	1.60	15.26	-0.91	16.77	-0.77	25.84	0.08
		Participation Index		**2.29**		**-2.47**		**-1.66**		**1.84**
	Jalisco	Personnel Employed	44.61	1.71	17.63	-0.64	16.51	-0.74	21.26	-0.33
		Salary and Wages	15.11	-1.22	19.52	-0.68	29.73	0.58	35.66	1.31
		Hours Worked	44.08	1.71	17.30	-0.69	16.92	-0.72	21.70	-0.30
		Participation Index		**2.20**		**-2.01**		**-0.88**		**0.69**

Source: Self-elaboration. This table shows the estimated social participation index by company size, both for Mexico to Jalisco, based on the variables described.

The economic and social impact of SMEs has been slightly higher in Jalisco than nationally. Conversely, large companies have also had less of an impact in Jalisco that at the national level. However, this has not led to increasing productivity for SMEs. Actually, the number of SMEs in the Jaliscan industrial sector is lower than the national average and only 11.19% of this sector's sales are to international markets. This demonstrates a lack of support for the factors that could strengthen industrial SMEs

SMEs industrial behavior is an important economic performance indicator in the region because this is the sector, which most clearly demonstrates and receives public administration support, as well as assistance from other organizations like universities and business associations. The sector is driven by social and political pushes towards increased performance, innovation, exports, etc. This is because SMEs industrial are where the one primarily sees the knowledge and innovations developed by public and private research put into practice. Furthermore, unlike large corporations, SMEs are usually composed of local capital; respond to regional incentives and are unaffected by multinational corporate decisions. SMEs are also more regionally based. In contrast, micro businesses are usually focused on the self-employment market.

RESULTS

The above-mentioned description of micro, small, and medium-sized businesses in Jalisco demonstrates the diverse challenges and opportunities associated with improving this sector's performance. The first of these challenges is how to provide development and support to a sector with such a high level of heterogeneity. It is necessary to design differentiated strategies for the diverse typologies of this sector in order to achieve the distinct desired objectives.

This analysis proposes that the policies to promote micro, small and medium-sized companies should have at least two major components. The first component is to provide support and attention to those companies that have self-employment and subsistence as its principal objective. This description applies to the majority of micro and small businesses and they can be considered as "life style" companies, as defined by Pirnay et al [2003], since their behavior is more reflective of the owner's choices than the intention to compete in the marketplace. There are multiple examples of how the business owners' lifestyles affect their companies' behavior. One instance would be in their level of proactive behaviors. Owners may actually prefer to maintain a lower level of activity because it is more compatible with their lifestyles. It could also be the case that they lack the necessary skills to carry out growth strategies or improve their market share.

There is a significant opportunity to improve "life style" companies' productivity through training for owners, entrepreneurs, and their employees. These companies often need to formalize and consolidate their businesses through the development and application of basic business competencies. Being able to learn and develop these, basic skills would benefit them more than using innovative technologies or promoting products for export. Many of the standard programs catering to micro, small and medium-sized businesses are not viable for many small business owners due to their lack of basic business and managerial skills. This situation leaves many small business owners unable to absorb available information, innovative technologies and even to utilize financial support from the public sector.

In order to correct this situation, it is essential that a company exist in formal terms. This needs to occur through the least bureaucratic and most inexpensive registration process possible. The most desirable situation would be that business owners (when he/she is the only person who will tend to the business throughout its existence) have basic skills in business management. This would allow them to make their project/business a viable one in the medium and long term, even if the company's nature and performance does not allow it to transcend self-employment and micro business status.

One of the keys to improving micro, small and medium-sized businesses' productivity would be to have policies and business skill development programs that reach out to entrepreneurs and business owners in the informal sector as well as those sectors that are underdeveloped in both urban and rural areas. The goal would be to improve employment creation and strengthen the basic skills that allow companies to achieve better economic performance. Nevertheless, this strategy faces diverse problems. One problem would be how to reach out to agents who often do not consider themselves as business owners, including professionals like architects, lawyers, scientists and researchers who have the potential to begin and manage projects using the latest technology as well as humble street venders, which means that programs must be flexible and capable of adjusting to very idiosyncratic situations. They frequently do not have time for training or they lack basic educational skills to begin with. They are often disperse and hard to reach, both in regional terms and in their specific work area. However, if we want to improve the performance of micro, small and medium-sized businesses, it is essential that their owners at least have the basic skills to manage their companies and projects.

The second component of policies to promote small businesses needs to focus on companies with high performance potential. Currently, the vast majority of micro, small and medium-sized businesses have little

interest in investing in "impractical" areas like basic scientific and technological research or internationalization. However, these areas are precisely where a robust economic development for the future of Jalisco can be built. This is especially true if they are accompanied by mechanisms that allow linkages to form a chain beginning with the development of new knowledge and ending with its utilization to meet market demands.

Within the sector of micro, small and medium-sized businesses, there is a subgroup of companies that have the potential to grow and be highly successful. These companies could obtain a competitive advantage allowing them to achieve above-average results. If they could reach this goal, they would have the ability to achieve a variety of objectives such as growth, increased market share, innovation, internationalization, etc. In analyses of the entire sector of micro, small and medium-sized businesses, those companies with a competitive advantage tend to go unnoticed because they are relatively rare. There is a tendency for these types of companies to be considered as having limited economic viability. Nonetheless, large corporations began as micro businesses. Actually, scientific and technological developments have reduced the optimal production scale in many sectors and increasingly smaller companies have been able to have efficiency levels similar to those of large corporations.

The more companies develop competitive advantages, the better the performance of the entire small business sector will be. Overall, economic performance would improve via knowledge transfers and competitive imitation, increasing the average performance throughout the whole sector. Thus, it is necessary to understand the mechanisms that lead to the creation of competitive advantages for the small business sector. The problem with focusing on the competitive advantage concept is that it often emphasizes exceptional cases and not common ones. This difficulty is compounded by the fact that the small business sector is highly heterogeneous. General analyses are often inefficient and it is necessary to establish more homogenous subgroups within this sector. These groupings allow for a more precise analysis of factors related to economic performance and competitive advantages, thus permitting the introduction of specific and efficient business promotion strategies.

By specifically focusing on homogenous groups, adequate programs can be established, leading to the founding of companies with characteristics allowing them to achieve success. This is one of the key factors to developing a strategy to improve the economic performance of SMEs sector. This could increase the number of large corporations (keep in mind that currently, they are only 5.42% of companies in Jalisco) as well as assist micro businesses to achieve small business status by facilitating their creation and formalization.

In any case, the creation a company is a complex process. To create successful businesses, it is not enough to reduce paperwork, for example. Actually, one of the facts that stand out in various studies of distinct business development initiatives [Serarols et al, 2006] is that the phenomenon of business creation in and of itself is insufficient to achieve economic growth and development objectives. Rather, it is essential that newly created companies achieve the necessary efficiency rates to be successful in the marketplace after the period in which they receive fiscal subsidies ends.

Here, the fundamental question shifts from how to assist with the creation of more businesses to how to obtain the creation of more businesses that have the necessary characteristics to be successful in the market. To resolve this question, small business sector research focused on entrepreneurs and business creation (*entrepreneurship*) as well as economic behavior factors has identified certain typologies whose performance is above average. This research has demonstrated that initiatives focused on business creation should abandon general approaches and shift their attention to the creation of businesses that fall within these typologies, since they have more potential for success.

Gazelle companies[Feindt et al, 2002; Hernández et al, 1999 and Julien et al, 2001], technology companies [Barranco, 2001; Fariñas et al, 2006; González, 2000-2003; León, 2000 and Simón, 2003], and *born global* companies [Rialp et al, 2005] are three types of businesses that have been high performing. While none of these categories were specifically constructed to analyze small and medium-sized businesses, everyone refers to them. These categories are frequently used to describe companies founding and initial development, even if the organization is no longer part of the small business sector at the time of the analysis. Researchers have identified these specific characteristics as the ones that led to company growth and consolidation.

Gazelle companies are able to achieve above-average growth in a sustained manner without sacrificing profitability. Obviously, there are gazelle companies in the SMEs sector. It is often easier and more essential for young small companies to grow than for large consolidated ones. Nevertheless, researchers have identified gazelle companies in mature sectors using traditional technologies. This allows one to suppose that a company's growth potential not only lies in external factors, but can also be found within the companies themselves.

Technology companies often have competitive advantages associated with their founding, since they are frequently created to exploit new and innovative technologies [Capaldo et al, 2003; Gisbert, 2005; Solá et al, 2006; Sánchez, 2005 and Scott, 2006], These ideas and products are usually developed and created by universities and other research centers. By taking advantage of their competitive advantages, these start-ups often are able to drive their own growth, consolidation and internationalization. At the same time, they benefit society by providing consumers with products and services that offer advanced solutions to their needs. The relationship between technology companies and cutting-edge research has been strong from the beginning and many of these businesses are university *spin-offs* [Agrawal, 2001 and 2006; Boccardelli et al, 2006; European Commission, 2002; Fong, 2010; Gübelli et al, 2005; Heirman et al, 2005; Serarols et al, 2006; Rubiralta, 2004; Vohora et al, 2003 and Walter et al, 2006].

This has two important implications. First, universities repay society for the resources they receive through research results that lead to the development of new companies. Aside from meeting consumer demand, these companies create quality jobs. Second, economic promotion public policies, through the creation of spin-off university companies, lead to the absorption of scientific-technological knowledge and innovation into the productive apparatus. This contributes to general increases in modernization and efficiency.

Born global companies [Rialp et al, 2005] are those that have manifested a clear international vocation since their beginning. They entered international markets without going through the stages of development that are traditionally expected for SMEs. The fact that born global companies exist is a result of growing globalization allowing increasingly smaller and smaller companies to take advantages of open markets and new technologies to internationalize. By intensely utilizing these advantages, they benefit from a lack of large physical investments and are not limited by local markets.

These three types of companies actually coincide with each other in terms of resources and strategic skills. It is easy to imagine companies that can be simultaneously considered technological, with high growth potential and are born global. However, they are usually treated as separate categories in analytical terms because they tend to emphasize different aspects such as growth rates, R and D investments and international commitments. In addition, many companies that fall within all three categories often decide to focus on one of these areas more than others do. Decision-makers and entrepreneurs are not homogenous and do not respond in a standardized manner to economic and institutional incentives. While it is necessary to analyze economic and institutional conditions in order to understand and organize patterns of competitive business creation, it is not enough. It is necessary to focus on entrepreneurs' motivational factors and responses to incentives as well.

The need for public policies to have this double focus regarding business creation has been recognized by distinct international organizations like the Inter-American Development bank (IAD). In their report *Entrepreneur Development: Latin America and the International Experience,* they authors point out that "The role of government is to facilitate the development of the private sector. Through public policy, governments need to create a formal business environment so that entrepreneurs can develop their businesses and receive its benefits. In order for these policies to be effective, they should be based on precise information about problems and the manner in which entrepreneurs operate" [Kantis, 2004: 5].

In Mexico and Jalisco, public policies have recognized the need to accelerate economic growth. To achieve this, business creation must play an important role in improving efficiency. Of course, there have been clear efforts on the part of diverse administrations and institutions to facilitate innovation and the creation of competitive companies, efforts that have resulted in innovation measures, the creation of technology incubators and parks, the development of academic programs aimed at entrepreneurs, etc. However, the evidence presented in this study clearly demonstrates that the achievements associated with these efforts have been insufficient and there is a need to find mechanisms that allow for greater advancement if the goal is to create and support a robust and competitive small and medium-sized business sector. To achieve this, an important first step is to do more research in order to have a deeper understanding of the types of competitive companies in Jalisco. This implies diverse challenges and the first one is regarding currently available information.

The lack of information is obvious when one tries to work with concepts such as gazelle companies. It is necessary to utilize historical data about these companies' economic performance since this category implies high growth levels over time and not for only one year. This could lead to grave mistakes. Measurements of only one business cycle do not allow researchers to identify if the growth is due to company efficiency, or to industry behavior. It also does not allow for the isolation of other variables. It is also insufficient to allow researchers to identify if the growth strategy comes at the cost of profitability or even the company's survival.

It is also necessary to develop research strategies allowing investigators to work with companies that are extraordinary and are subsequently eliminated from conventional statistical analyses. However, it is precisely the fact that they are atypical outliers, which make them interesting to analyze. These companies represent the future because they have competitive advantages and new competitive strategies. One way in which these companies could be analyzed would be to utilize the case study method that would provide successful models for other companies to follow.

The viability of this strategy has been demonstrated by the results obtained by Fong et al [2011], Fong and Ocampo [2010], Fong and Alarcón [2010]. Aside from identifying competitive company types like the ones mentioned above, they have also identified particular behaviors that have not been described in the international literature. By using case studies, Fong and Ocampo [2010] discovered that business owners considering early internationalization found information about other companies that went through the same process to be as valuable as access to financing. Thus, a case study data bank that allows information about successful business strategies to be reported and shared would be useful to many others and could be used to help improve sector performance.

CONCLUDING COMMENTS

The situation of the micro, small and medium-sized business sector has been presented in this paper. Understanding the small business sector is key factor to comprehending economic performance in Jalisco and its potential for future development. The data used was taken from the 1999, 2004 and 2009 Economic Census as well as other sources like the Mexican Business Information System (Sistema de Información Empresarial Mexicano or SIEM in Spanish). This information has given us a picture of the composition,

dynamics, evolution and above all, the strategic challenges of the micro, small and medium-sized sector. This analysis includes company distribution by sector and size, international market participation, and a social and economic impact index. Furthermore, a regional and national comparison of current observed trends was provided. This has led to the identification of differences in economic performance levels. It has served as a method to define the challenges that the small business sector faces in Jalisco as it seeks to modernize and consolidate.

The evidence shown here demonstrates that in spite of the efforts of distinct administrations, public policies and small business outreach programs, the sector has not achieved the performance levels that they had hoped. In particular, the small business industrial sector has many observed weaknesses and this area should be the starting point for state development strategies.

Any strategy to promote the growth and development of the micro, small and medium-sized business sector needs to have at least two components. The first part of the strategy should be aimed at the formalization and consolidation of companies whose primary objective is self-employment. They second component should be focused on small business that have a high growth potential. Technology, (especially university spin-offs), born global and gazelle companies should be supported and encouraged.

The promotion of and support for these companies requires a better understanding of their creation and development mechanisms. This implies a need for more and better research of the sector. This research should then be compiled into a case study data bank. By registering successful experiences, the case studies could serve as a model for other companies to follow. Small business promotion and improving sector performance are complex tasks that require multiple agents and institutions. Nevertheless, the importance of the sector justifies all possible efforts since the future of Jalisco depends on its success to a great measure, both in economic and development terms.

The results described, open the door to future studies. For example, as these differences detected in the business dynamics of Jalisco against the nation, raise the possibility of establishing a public policy guideline that can promote micro and small businesses in specific areas, as in gross fixed capital formation. As the results obtained indicate that SMEs are composed of businesses that are doing what is necessary to survive, but are not investing needed to compete with big business, much less internationally.

In addition to the already mentioned, it is important that the indexes created are limited to competition between micro, small, medium and large companies, however it is desirable to compare these companies not only in the national context but internationally. However, this is complicated by variations in industrial classifications in the different regions of the world, so that at first, only you could make the comparison with companies in the United States and Canada, it would be the next step in this line of research.

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