

THE SME IN MEXICO: MODELS FOR STARTING COMPANIES THAT WILL SUCCEED, IN PARTICULAR BORN GLOBAL AND SPIN-OFF FIRMS

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For countries such as Mexico to be able to increase the rate of growth of their economies and improve social conditions, it is necessary for them to create innovative companies that are socially responsible and integrated into international flows of trade and investment. Competitive companies, especially those that are Small to Medium Enterprises (SMEs), will be able to rise to the challenge as long as they are able to develop certain features of vital importance to company performance, such as having an advanced technological base, growth potential and being fully engaged in international trade. These features are important because they facilitate increased productivity, and also because the companies that have acquired them will be those generating the largest number of quality jobs in the economies of the twenty-first century.

In order to contribute to the creation of a larger number of competitive SMEs, in this study various models that explain how companies of this kind are started up in Mexico are brought to the reader's attention. The models are consistent with what has been established internationally in the literature (Kantis 2004), where it is accepted that the way a company starts up responds both to the economic and institutional incentives and conditions of a particular place, and also to the way in which agents take up such incentives.

As the success of a company and the degree of competitive advantage it has can only be established on the basis of observations of average or standard behaviour in a specific industry or sector of activity, there are two questions which need to be addressed in this paper. The first is related to the average or typical

behaviour of an SME in Mexico, and the answer to this question aims to provide an image to serve as a point of reference for evaluating cases of extraordinary performance by particular firms, but also to identify areas where there are opportunities for interventions that will make the SME perform better. The second question has to do with identifying appropriate strategies to encourage the overall performance of SMEs in Mexico, by focussing on the creation of successful businesses. Thus the questions to be answered are:

1. What are the SME in Mexico like?
2. Which are the strategies that will make for the creation of a successful SME?

WHAT ARE THE SME IN MEXICO LIKE?

In order to determine what the small to medium sized firm in Mexico is like, it is first necessary to define what an SME is, and the ways in which it differs from a large firm. Although we all think we know what the difference is, it turns out when the official definitions made by different authors and official organizations are revised (Fong 2007), that there are no universally accepted clear criteria as to which companies should be placed in the category of SME, and which should be included as large firms. This is due to the great heterogeneity of the characteristics of firms that might be classified as SMEs, features that are frequently determined by the sector of the economy that they work in, though mainly by the technology they use and the ways in which they manage to innovate and adapt to the demands of the market (Fong 2003).

At any rate, and even assuming that no single criterion is able to reflect the complexity of an SME entirely, it has been necessary to choose from among the various definitions on offer those which are most representative and those which are most appropriate to the needs that will be attended to using each definitions proposal. The most used of these criteria is the number of people working for the company, which tends to be used in conjunction with others, such as the productive sector of the firm. More recently, new criteria such as the degree of independence it has in decision making or the volume of its sales, have been applied, in the hope of recognizing the impact that technological development and economic globalization

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have had on their performance.

In Mexico, the criteria used, until June 2009, for establishing which companies belonged to the category of SMEs, were the productive sector the firms worked in and the number of people employed:

While this definition certainly has the virtue of simplicity, it allowed companies to be classified even when there was very little information on them, so it probably did not reflect the impact associated with the development of new technologies, especially of information and communications, which have enabled the optimum size of companies to be reduced and allowed relatively small companies to achieve a performance very like that of big firms. For this reason, after the 30th of June 2009, the system of classifying companies only on the basis of the sector they worked in

TABLE 1: CLASSIFICATION OF FIRMS BY NUMBER OF PEOPLE EMPLOYED			
Size \ Sector	Industry	Commerce	Services
Micro firm	0–10	0–10	0–10
Small firm	11–50	11–30	11–50
Medium-sized firm	51–250	31–100	51–100
Large company	251 or more	101 or more	101 or more

Source: Sistema de Información Empresarial Mexicano, (SIEM) December 2007

TABLE 2: STRATIFICATION OF FIRMS IN MEXICO (from July 2009)				
Size	Sector	Range of number of employees	Range of volume of annual sales (VAS)	Maximum combined Figure*
Micro	All	10 or less	\$4 or less	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 = (Workers) X 10% + (Annual Sales) X 90%.

Source: Sistema de Información Empresarial Mexicano (SIEM)

and the number of employees was abandoned, and an indicator of the level of activity seen in the volume of sales was included:

Hence, the size of the enterprise will be determined on the basis of the figure obtained according to the following formula: Figure for company = (Number of Workers) X 10% + (Annual Sales Volume) X 90%, which should be the same or less than the Maximum Combined Figure for the category it fits.

This new definition of an SME will certainly make it possible to have a more clearly defined perspective on the state of companies of this kind in Mexico but as it was introduced only very recently, there are no official data based on its use yet. We must also wait for the Results of the 2009 Economic Census, which will be published in 2010.

Lacking official figures for the most recent years, the present work offers data for several periods, especially 1988, 1993, 1998 and 2003, and in order to make sure that the observations are still valid at the time the research is written (Autumn 2009), recent figures from the Mexican Business System (*Sistema Empresarial Mexicano*, SIEM), attached to the Department of Economy (*Secretaría de Economía*), have been included, but it should be noted that the latter figures may show a bias as participation in the SIEM is only for properly registered firms and is voluntary, which means it refers only to particularly assertive firms and excludes the informal sector, which in Mexico is a significant part of the economy¹⁾.

According to information in the Economic Censuses (INEGI, 2004), and as shown in **Table 3**, taken as a whole the micro, small and medium enterprises (known as MiPyME) in Mexico make up 99.57% of all firms, employ 66.5% of the economically active population (EAP) and account for 36.3% of the gross domestic product (GDP).

It is important to stress that 94.95% of the enterprises are micro firms and only 4.62% are small and medium enterprises, but these latter employ 28.16% of the EAP and account for 24.69% of GDP. This situation highlights the importance of this business sector, which also has the greatest potential for the application of means for

1) Roughly speaking, according to sources in the press, it is estimated that 60% of the population do not contribute directly to the national tax office.

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Size	Number of Companies	No. of Staff Employed	Gross Production	Percentage	(%) Staff Employed	(%) Gross Production
Micro	2'853,291	6'224,965	732'760,139	94.95%	38.33%	11.60%
Small	112,116	2'478,964	703'324,300	3.73%	15.26%	11.13%
Medium	26,771	2'094,576	856'757,568	0.89%	12.90%	13.56%
Large	12,979	5'441,031	4,024'336,770	0.43%	33.50%	63.70%
Total	3'005,157	16'239,536	6,317'178,777	100.00%	100.00%	100.00%

Source: Working papers from the Autumn 2009 Seminar IV for Dissertations Specializing in Management and Technological Improvement, *Seminario de Tesis Especialidad en Administración e Innovación Tecnológica IV* (Otoño 2009), on the basis of information in Censos Económicos, INEGI 2004.

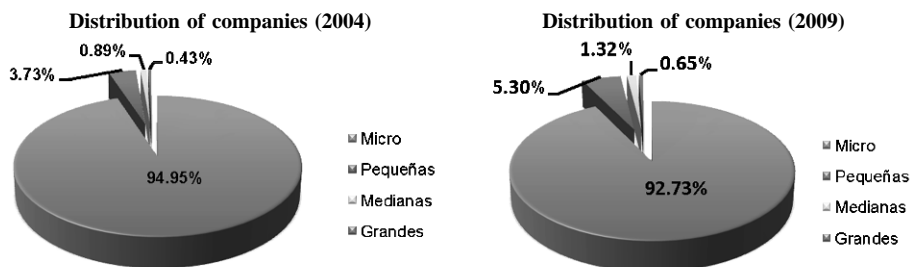
Size	Percentage of firms (2009)	Percentage of job creation (2009)
Micro	92.73%	55.35%
Small	5.30%	20.46%
Medium sized	1.32%	13.11%
Large	0.65%	11.08%

Source: Working papers from el Seminario de Tesis Especialidad en Administración e Innovación Tecnológica IV (Otoño 2009), based on data from SIEM and ENOE, INEGI.

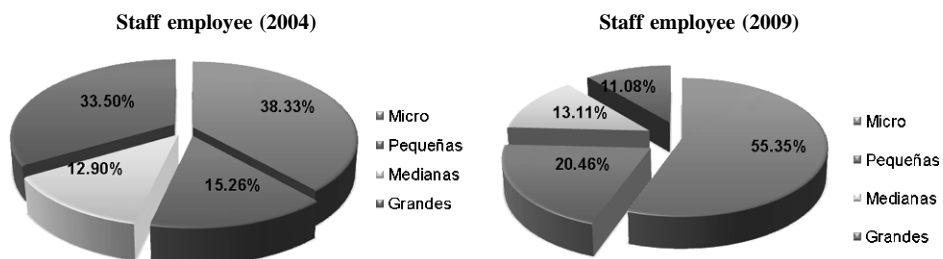
stimulating the performance of companies.

According to figures published by the SIEM and as can be seen in **Table 4**, of all Mexican firms 99.35% are either micro, small or medium sized enterprises (MiPyME in Spanish), and their relative numbers are similar to those in Table 3. With respect to the creation of jobs, according to information from the National Survey of Work and Employment, *Encuesta Nacional de Ocupación y Empleo (ENOE)*, for the second quarter of 2009, some 88.92% of the EAP employed in the private sector, were working in MiPyMEs and only 11.08% worked in big companies, which is indeed a significant change from the figures reported for 2004, as there has been an increase in about five years of over 20% in the number of jobs created by economic units of the smaller sizes.

Owing to the nature of the sources of information referred to, it is not possible to say whether there was during the period a better performance of the MiPyME in



Source: Documentos de trabajo del Seminario de Tesis Especialidad en Administración e Innovación Tecnológica IV (Otoño 2009), on the basis of figures from INEGI and SIEM.



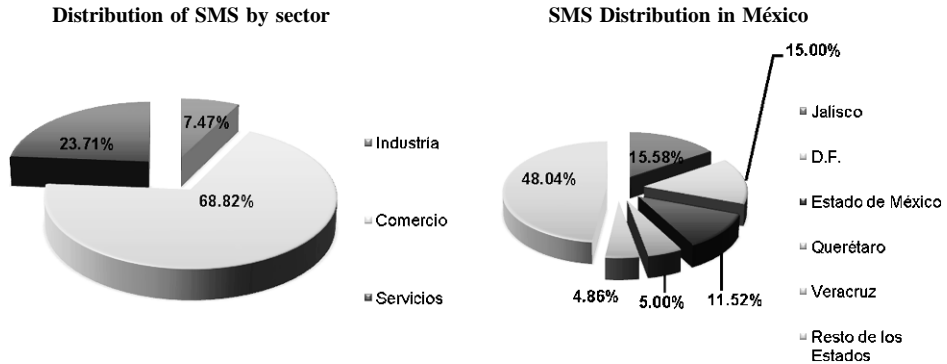
Source: Working papers from the Seminario de Tesis Especialidad en Administración e Innovación Tecnológica IV (Otoño 2009), based on figures from INEGI.

general, as the SIEM does not include productive units from the informal sector, but it may be affirmed that formally registered companies have done better than the average, which includes those that stay informal. This may be explained by the fact that only for the more competitive companies is it worth making a formal register of their activity (and therefore paying taxes), but it is also because formal companies have access to public assistance, and most of all, to finance.

The figure below shows how the balance of companies of the different sizes has evolved both in terms of how many there are in each category and in the contribution of each to the creation of employment from 2004 to 2009:

According to the register of the SIEM, over 68% of the MiPyME are located in the commercial sector, almost 24% are in services and only a little over 7% are in the industrial sector. With regard to the territorial distribution of the companies, over 50% of the firms are concentrated in just five states of the Republic, the largest number of MiPyME registered being in the state of Jalisco. The high concentration of companies in the central (Mexico City – Federal District, Estado de México, Querétaro,

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Source: Working papers for the Seminario de Tesis Especialidad en Administración e Innovación Tecnológica IV (Otoño 2009), based on figures from the SIEM.

etc.), and Western (Jalisco) regions, reflects a historical tendency, but surprisingly the figures from the SIEM do not show the importance of the northern region (Nuevo León, Tamaulipas, etc.) which is where one of the most important industrial areas of Mexico is.

Until some time before the current financial crisis, the performance of the Mexican economy was positive and this might lead one to suppose that the MiPyME as a whole had strengthened, profiting from the favourable conjuncture. However, as is demonstrated by De la O et al. (2007), between 1993 and 2003 there is a relative fall in production by SMEs in the national economy, probably as a result of the profile adopted by Mexico of producers highly specialized in a single sector, which was caused by the strategy of lifting trade barriers, as the neoclassical theory of international trade establishes that one of the advantages of specialization is the opportunity to widen markets for the sale of one's products and to generate economies of scale, but it is probably the large company that has the best opportunities for cashing in on the reduction of costs, in a way that is more efficient than that which the small to medium company is capable of.

De la O et al. (2007) also show in their study that the social impact of the SME in the period was not what had been expected. In fact, they point out that the consistently negative results by SMEs for the social component, as well as for the economic ones, seem to confirm that the participation of SMEs in the Mexican economy has lost ground to the micro and the large enterprises. This then makes it

TABLE 5: RATE OF ECONOMIC PARTICIPATION BY THE PYME COMPARED TO COMPANIES OF OTHER SIZES													
Period	2003						1998						
	Micro		PYME		Large		Micro		PYME		Large		
Variables	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	
Establishments	95.03	1.41	4.64	(0.66)	0.33	(0.76)	95.97	1.41	3.78	(0.67)	0.25	(0.75)	
Gross formation of fixed capital	14.90	(1.15)	31.17	(0.14)	53.93	1.29	15.23	(1.04)	27.92	(0.31)	56.84	1.35	
Total gross production	13.37	(1.19)	32.12	(0.07)	54.51	1.26	23.75	(1.23)	33.39	0.01	42.85	1.22	
Gross census value added	14.65	(1.10)	29.51	(0.22)	55.84	1.32	24.12	(1.24)	33.56	0.03	42.32	1.21	
Production in terms of GDP	9.91	(1.19)	23.80	(0.07)	40.39	1.26	18.94	(1.23)	26.62	0.01	34.16	1.22	
Production in terms of aggregate demand	7.14		17.15		29.10		12.84		18.05		23.17		
Rate of economic participation		(3.21)		(1.16)		4.37		(3.32)		(0.93)		4.25	
Period	1993						1988						
Variables	Micro		PYME		Large		Micro		PYME		Large		
	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	
Establishments	95.79	1.41	3.98	(0.66)	0.23	(0.75)	94.81	1.41	4.92	(0.65)	0.27	(0.76)	
Gross formation of fixed capital	27.74	(1.23)	38.86	1.22	33.41	0.02	16.31	(0.99)	26.68	(0.39)	57.02	1.37	
Total gross production	22.59	(1.32)	42.32	1.10	35.09	0.22	15.39	(1.41)	42.63	0.73	41.98	0.68	
Gross census value added	23.58	(1.32)	35.05	0.23	41.36	1.09	15.36	(1.24)	33.87	0.04	50.77	1.21	
Production in terms of GDP	24.02	(1.32)	45.00	1.10	37.32	0.22	15.55	(1.41)	43.07	0.73	42.42	0.68	
Production in terms of aggregate demand	18.96		35.52		29.46								
Index of economic participation		(3.78)		2.99		0.79		(3.64)		0.46		3.18	

Source: De la O et al. (2007)

TABLE 6: RATE OF SOCIAL PARTICIPATION BY PYMEs WITH RESPECT TO COMPANIES OF OTHER SIZES												
Period	2003						1998					
	Micro		PYME		Large		Micro		PYME		Large	
Variables	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate
Staff employed	44.09	1.41	27.51	(0.76)	28.40	(0.65)	46.05	1.40	28.79	(0.50)	25.16	(0.90)
Salaried remuneration	12.73	(1.23)	33.45	0.01	53.82	1.22	14.54	(1.35)	37.81	0.32	47.65	1.03
Staff employed in terms of EAP	15.14	1.41	9.45	(0.76)	9.75	(0.65)	14.02	1.40	8.77	(0.50)	7.66	(0.90)
Rate of social participation		1.60		(1.52)		(0.07)		1.44		(0.67)		(0.76)
Period	1993						1988					
Variables	Micro		PYME		Large		Micro		PYME		Large	
%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	
Staff employed	48.21	1.33	30.67	(0.24)	21.12	(1.09)	41.21	1.17	33.97	0.09	25.16	(0.90)
Salaried remuneration	14.31	(1.41)	44.25	0.81	41.44	0.60	12.27	(1.40)	41.73	0.56	47.65	1.03
Staff employed in terms of EAP	13.40	1.33	8.52	(0.24)	5.87	(1.09)					7.66	(0.90)
Rate of social participation		1.24		0.33		(1.58)		(0.23)		0.65		(0.76)

Source: De la O et al. (2007)

obvious that the government does not have an economic policy to encourage businesses that might be based on the creation of long term strategic competitiveness and integrating the SMEs into local and regional markets, whether for the creation of goods and services or for the absorption of man power:

It was mentioned above that one of the aspects that have the greatest influence on differentiating the characteristics of an SME is the sector that the company works in. This is clear from **Tables 7** and **8** where it may be observed that small to medium sized firms in manufacturing have done better than those in the commercial and services sectors. In fact the manufacturing sector has positive economic figures for all periods, though not for the number of establishments. With regard to social participation, it is the sector that generates the most employment and pays the best wages.

The figures here relating to the SME of the industrial sector can be used to show the position occupied by Mexico, as an emerging economy, in the international distribution of work and at the same time they call for a reflection on what to expect from other sectors – especially services, which concentrates many value added activities, and activities intensive in the use of knowledge, which form the basis of economic development in contemporary societies.

Finally it is necessary to take into consideration the fact that Mexico, like all other countries inserted in the world economy, is suffering the effects of a worldwide financial crisis, and that the consequences for the SMEs in the national economy cannot yet be evaluated completely, as their transition into the real economy takes more or less time depending on the specific features of each region. Within these limitations it is still possible for certain indicators such as the rates at which firms are being created or destroyed to provide something close to an analysis of the performance of SME during this period of crisis: according to the number of firms registered in the Mexican Business Information System (*el Sistema de Información Empresarial Mexicano*, SIEM) it might be said that the negative effects of the crisis on the Mexican economy took place fundamentally in 2008 and that by 2009 recovery had begun, but if the analysis is broken down into states of the federation, it is observed that nearly half of them are still losing businesses (See

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TABLE 7: INDEX OF ECONOMIC PARTICIPATION BY SMEs IN COMMERCE, SERVICES AND MANUFACTURING												
Period	2003						1998					
	Commerce		Services		Manufacturing		Commerce		Services		Manufacturing	
Variables	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate
Establishments	74.67	1.41	15.43	(0.61)	9.90	(0.80)	69.59	1.41	15.95	(0.79)	14.47	(0.62)
Gross formation of fixed capital	22.47	(0.55)	16.30	(0.86)	61.23	1.40	15.67	(0.59)	8.55	(0.82)	75.79	1.41
Total gross production	24.25	(0.42)	12.59	(0.96)	63.16	1.38	22.01	(0.46)	10.43	(0.93)	67.56	1.39
Gross census value added	37.15	0.25	13.23	(1.33)	49.62	1.08	35.09	0.10	11.50	(1.27)	53.41	1.17
Production in terms of GDP	5.77	(0.42)	3.00	(0.96)	15.03	1.38	5.86	(0.46)	2.78	(0.93)	17.98	1.39
Production in terms of aggregate demand.	4.16		2.16		10.83		3.97		1.88		12.20	
Rate of economic participation		0.28		(4.72)		4.44		0.01		(4.74)		4.73
Period	1993						1988					
Variables	Commerce		Services		Manufacturing		Commerce		Services		Manufacturing	
%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	
Establishments	70.75	1.41	14.02	(0.73)	15.23	(0.68)	69.61	1.41	13.09	(0.79)	17.30	(0.62)
Gross formation of fixed capital	15.81	(0.69)	15.05	(0.72)	69.15	1.41	21.58	(0.61)	17.83	(0.80)	60.60	1.41
Total gross production	54.98	1.08	6.61	(1.33)	38.41	0.25	51.19	0.86	4.33	(1.40)	44.48	0.54
Gross census value added	34.45	0.07	12.90	(1.26)	52.66	1.19	33.39	0.00	6.97	(1.23)	59.64	1.22
Production in terms of GDP	5.23	(0.65)	2.97	(0.76)	47.21	1.41	22.05	0.86	1.86	(1.40)	19.16	0.54
Production in terms of aggregate demand.	4.12		11.50		37.27		N.d		N.d		N.d	
Rate of economic participation		1.22		(4.80)		3.58		2.53		(5.62)		3.09

Source: De la O et al. (2007)

TABLE 8: RATE OF SOCIAL PARTICIPATION BY SMEs IN COMMERCE, SERVICES AND MANUFACTURING												
Period		2003						1998				
Variables	Commerce		Services		Manufacturing		Commerce		Services		Manufacturing	
	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate
Staff employed	38.06	0.57	21.61	(1.41)	40.33	0.84	31.54	(0.14)	18.91	(1.15)	49.55	1.29
Salaried remuneration	30.22	(0.23)	18.71	(1.09)	51.07	1.32	25.67	(0.48)	18.94	(0.91)	55.39	1.39
Staff employed in terms of EAP	3.60	0.57	2.04	(1.41)	3.81	0.84	2.77	(0.14)	1.66	(1.15)	4.34	1.29
Index of social participation		0.90		(3.90)		3.00		(0.77)		(3.20)		3.97
Period		1993						1988				
Variables	Commerce		Services		Manufacturing		Commerce		Services		Manufacturing	
	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate
Staff employed	31.99	(0.10)	17.38	(1.17)	50.63	1.27	31.17	(0.13)	14.78	(1.15)	54.05	1.29
Salaried remuneration	27.80	(0.34)	16.82	(1.02)	55.38	1.36	27.28	(0.30)	11.78	(1.05)	60.94	1.35
Staff employed in terms of EAP	2.73	(0.10)	1.48	(1.17)	4.32	1.27	N.d	N.d	N.d	N.d	N.d	N.d
Index of social participation		(0.54)		(3.36)		3.90		(0.43)		(2.20)		2.63

Source: De la O et al. (2007)

Table 9):

The situation described in this section makes it plain that the SME sector in Mexico has important and complicated challenges to meet, linked to improving its economic and social performance, especially because, in addition to the difficulties that are inherent to SMEs as a whole, there is also a particularly complicated context, linked to the worldwide financial and economic crisis today.

The performance of their SMEs is an important component of the response that different countries can make to economic crises. In this sense it is fundamental for Mexico to establish an appropriate strategy for promoting the performance and the viability of SMEs, one that will allow the country to face this conjuncture from a less vulnerable position, a strategy of *turning crises into opportunities*. In order to do this Mexico ought to be capable, amongst other things, of finding mechanisms that will propitiate the creation of companies, particularly those that will be able to balance the entrepreneurial fabric of the nation, both in regional and in sectorial terms.

In this sense, the creation of SMEs is important but not sufficient, as it is necessary for the newly formed companies to be able to compete successfully in the market, to grow, to generate employment, and to be incorporated into the dynamics that correspond to an open economy in a globalized world.

The focus on promoting SMEs requires, in addition to propitiating stable macroeconomic conditions and the application of policies of a general scope (areas in which the Mexican government has made significant efforts), identifying and promoting the most competitive SME, to serve as an example and to bring the sector as a whole up with it, even when its presence among the rest is statistically irrelevant.

For this strategy to be viable as a complement to the public policies of promoting SMEs, it requires the participation of several organisms such as universities and both public and private centres of research, chambers of commerce, etc. It also means that the study of factors determining the behaviour of SMEs, should not only conduct an analysis of the economic and institutional conditions that apply in a particular territory, but should also include the factors which determine the nature of the response made to the incentives provided, by the agents concerned.

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STATE	FIRMS IN THE SYSTEM IN:								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
AGUASCALIENTES	6,074	6,071	7,662	6,809	8,417	9,011	9,541	8,975	7,107
BAJA CALIFORNIA	14,704	13,121	11,929	11,067	11,421	10,541	9,949	10,733	11,188
BAJA CALIFORNIA SUR	8,673	8,697	7,549	7,614	7,108	6,901	9,172	11,044	12,014
CAMPECHE	3,968	3,184	3,187	2,274	2,354	1,945	5,635	6,210	7,792
COAHUILA	8,421	7,967	8,899	9,013	8,860	7,823	7,893	10,800	11,382
COLIMA	2,540	2,247	2,012	1,454	1,318	773	606	525	597
CHIAPAS	4,070	3,645	3,093	2,396	2,741	2,873	3,236	3,427	3,305
CHIHUAHUA	25,747	26,926	27,499	27,460	32,983	35,566	37,559	33,174	32,110
DISTRITO FEDERAL	117,961	116,910	115,809	113,830	131,447	124,443	125,990	117,356	105,950
DURANGO	3,615	2,811	2,396	1,744	1,631	1,336	1,191	1,256	1,116
GUANAJUATO	24,513	23,443	23,156	17,705	20,772	21,199	23,147	27,356	30,761
GUERRERO	6,242	4,578	3,342	2,035	2,216	1,869	1,881	1,858	1,189
HIDALGO	24,294	27,774	29,245	22,854	21,585	25,368	30,075	27,634	17,821
JALISCO	79,788	82,552	81,392	93,087	117,537	117,721	126,736	90,373	110,349
ESTADO DE MEXICO	67,941	81,145	82,020	76,244	75,272	75,082	76,514	83,071	80,788
MICHOACAN	13,455	12,534	10,826	10,039	10,094	9,774	10,905	13,140	17,608
MORELOS	7,595	4,865	4,599	4,015	3,528	4,312	4,814	4,334	3,791
NAYARIT	7,864	9,260	10,698	12,158	12,244	11,263	8,302	10,660	13,069
NUEVO LEON	26,989	26,701	26,129	25,143	22,836	17,364	14,407	15,094	15,590
OAXACA	6,140	5,417	4,703	4,432	4,833	4,452	4,972	4,594	4,979
PUEBLA	15,952	14,577	15,577	14,668	13,434	10,611	10,689	11,409	10,440
QUERETARO	5,981	6,024	6,448	8,881	13,957	18,506	21,999	26,352	34,901
QUINTANA ROO	26,958	28,474	32,026	33,492	29,893	29,035	26,441	29,569	30,244
SAN LUIS POTOSI	12,207	12,520	11,955	12,421	15,266	14,695	15,087	13,801	12,678
SINALOA	15,331	15,528	15,345	14,071	14,007	13,029	12,538	11,505	10,327
SONORA	13,528	12,400	10,909	10,189	8,120	7,312	6,869	6,927	6,531
TABASCO	3,249	2,568	2,385	1,758	2,631	3,686	6,090	7,534	8,248
TAMAULIPAS	19,812	19,555	16,712	15,059	17,813	21,945	25,522	24,437	22,707
TLAXCALA	6,748	7,430	6,928	6,582	8,627	10,731	11,781	13,914	13,439
VERACRUZ	30,216	29,728	29,682	26,723	26,766	26,630	30,966	33,397	34,326
YUCATAN	19,804	21,782	22,088	21,461	22,662	19,421	23,710	24,496	25,726
ZACATECAS	7,920	7,395	6,013	6,400	6,568	6,172	7,026	6,880	8,038
TOTALS	638,300	647,829	642,213	623,078	678,941	671,389	711,243	691,835	706,111

SIEM (revised 20 August 2009)

Thus identifying and promoting the best SMEs implies introducing several new approaches of a more specific kind and especially, producing from within the SME itself, an aggregated analysis of the sector the SME works in.

WHICH ARE THE STRATEGIES FOR PROPITIATING THE CREATION OF A SUCCESSFUL SMALL TO MEDIUM SIZED COMPANY?

The performance of SMEs in Mexico is the sum of the individual performances by each of the small to medium-sized companies in the country. Given their characteristics and limitations, for most of the companies belonging to SMEs as a whole, to survive and be able to continue with their activities, may be said to be the same as being successful.

For a much smaller number of these companies, success is associated with obtaining a competitive advantage which allows it to obtain benefits above the average. Obtaining such benefits makes it possible for the company to attain certain objectives, such as growth, innovation, internationalization, etc.

In a general analysis of the SME sector, the companies with a competitive advantage tend to pass unnoticed, because they are few in number, and this leads to the assumption that SMEs are organizations that have a low economic viability. However, all the big firms began as SMEs, and in fact, scientific and technological development is making it possible for the optimum scale of production to be reduced, so that ever smaller companies are gaining rates of efficiency similar to those of the big firms.

To the extent that a larger number of companies develop a competitive advantage, the overall performance of the SME sector improves, not just because the averages go up, but also because an effect is produced, through various mechanisms of transferring knowledge, that brings the rest of the companies in the sector up in their wake. One of the concerns of this study is to understand the mechanisms that encourage the generation of competitive advantage in an SME.

The problem with approaches that are based on the concept of competitive advantage is that they emphasize the exceptional, not the common, and if we add to that the level of heterogeneity in SMEs as a whole, studies of a generalizing type turn out to be not very efficient and therefore require the introduction of sub-categories of SMEs with more homogeneous characteristics that will allow a more

precise analysis to be made of the factors associated with their performance.

The advantage of approaches that focus on the particular, is that they are suited to designing programmes that will lead to the creation of companies with the right characteristics for succeeding in the market.

Accordingly, one of the key strategies for improving the performance of the SME in general is to propitiate the creation of a larger number of such companies (which currently, as mentioned above, account for only 4.62% of all businesses in Mexico), both by making it easier for the micro company to reach the level of a small to medium sized enterprise, and by removing obstacles to the formal creation of a company of this size. In fact the national government, through initiatives such as the web site tuempresa.gob.mx, claims that the time needed to register a new company, which currently implies filling in 18 different forms and takes over 30 days, has been reduced to a single form that can be completed in under two hours.

But it is not enough to reduce the red tape in order to create more companies that will succeed. In fact, one of the observations made when examining the results of various initiatives aiming to encourage entrepreneurs (Serarols et al. 2006) is that starting up a company is not enough to attain the objectives of economic growth, and development. For this to happen the new businesses must reach the rates of efficiency and effectiveness that are necessary for successful performance in the market when they no longer enjoy the protection of the programme under which they were started, and are no longer receiving the fiscal subsidies designed to help companies start up.

So the basic question is no longer how to encourage the creation of more businesses, but how to create a larger number of businesses with the characteristics that are necessary for them to be able to succeed in the market.

With the aim of resolving this problem, research into SMEs, both with respect to the entrepreneur and the starting up of businesses (entrepreneurship) and with regard to the factors determining the performance of the company, has identified certain typologies for above average performance, in the light of which initiatives for starting up businesses should drop generalizing approaches and concentrate on the creation of companies that fit into these specific typologies, as the principle has been

established that these are the companies with the greatest potential for success.

These types include gazelle companies (Feidt et al. 2002, Hernández et al. 2002 Julien et al. 2001), technologically based companies (Barranco 2001, Fariñas 2006, González (2000–2003) León 2000, Simón 2003) and born global firms (Rialp et al. 2005). While none of these categories was created specifically for research into SMEs, all of them refer to the sector of small to medium sized enterprises, especially during the period of the formation and initial development of the companies, and even when one organization in particular is no longer part of the sector at the time it is being studied, including it in the research contributes to marking the steps that encourage the firm's growth and consolidation.

The gazelle are companies that sustain growth without sacrificing their profitability, better than the average, and their interest is connected to their dynamism. The identification of companies with high growth potential, or gazelles, in the context of SMEs and newly developing economic sectors turns out to be very easy, as expansion of the sector induces the growth of the organizations it is made up of, and it is easier and more necessary for young and small companies to grow than it is for those that are larger or more consolidated. However, various studies have found gazelle companies in mature sectors using traditional technologies. This allows one to suppose: that the potential for growth of a company is not determined only by factors external to the company itself, and that growth may be attained by other organizations as well as the young and the small.

The interest of the technologically based company has to do with the fact that this kind of organization has a competitive advantage deriving from its origins, as the company tends to have been started in order to exploit a particular technological innovation (Capaldo et al. 2003 Gisbert 2005, Solá 2006, Sánchez 2005, Scott 2006), usually one invented by universities or other centres of research. Having such an advantage propitiates its growth, consolidation and internationalization, and at the same time it benefits society by placing at the disposal of consumers, products and services that represent advanced solutions to their needs. The emphasis of research into companies with a technological base has been on their formation, as many of them are the result of spin-offs from the university (Agrawal 2006, 2001, Bocardelly et

al. 2006, European Commission 2002, Gübelli et al. 2005, Hairman et al. 2005, Serarols et al. 2006, Rubiralta 2004 Vohora et al. 2003, Walter et al. 2006). This has two important implications. The first is that it allows the university to pay something back to society in exchange for the resources it gets, by generating research findings that can propitiate the development of businesses. As well as providing solutions for society's consumption demands, businesses of this type create quality employment. The second implication has to do with public policies to promote the economy, as through the creation of university spin-off companies the productive apparatus is encouraged to absorb scientific and technological innovation and knowledge, thus contributing to its modernization and efficiency.

With regard to the born global companies (Rialp et al. 2005), in the last few years it has also been observed that some of the companies starting up have a clearly international vocation from the first, and that they introduce themselves into international markets without going through the stages of development that are traditionally expected of an SME. This type of company owes its existence to the growing globalization of economies, which allows firms of smaller and smaller sizes to take make good use of the advantages of trade liberalization and of new technologies, by going international, capitalising intensively on its intangible assets and thus compensating for its lack of large amounts of physical investment and the limitations of local markets.

These three types of company have certain features in common (similar resources and strategic capacities), so it is easy to imagine firms that can simultaneously be considered technologically based, with a great potential for growth, and born global, but in analytical terms they have usually been studied as belonging to separate categories as they emphasize differentiated aspects (rate of growth, investment on R+D, international commitments) and also because even when a company has the right conditions for undertaking strategies characteristic of all three categories, it may decide to take up only one. This is because those responsible for taking decisions, the entrepreneurs, are not homogeneous and do not respond in a standard way to economic and institutional incentives. Therefore, to understand and to try to determine the tendencies of the patterns of starting up competitive companies in a

particular territory, it is necessary to analyze the prevailing economic and institutional conditions, but this is not enough. It is also necessary to address the factors that determine the response made to these incentives by the entrepreneurs.

The need for this double approach in designing policies for starting up businesses is recognized by various international organizations, such as the International Development Bank (Banco Iberoamericano de Desarrollo, BID) which notes in its report *Desarrollo Emprendedor: América Latina y La Experiencia Internacional* (Entrepreneurial Development: Latin America and The International Experience) that “The role of governments is to facilitate the development of the private sector. Through public policies, governments must create a business environment that is suitable for businessmen to be able to develop their activities and reap their benefits. For these policies to be effective, they must be based on precise information concerning the problems of the entrepreneurs and the ways in which they operate” (Kantis 2004 p. 5) .

In the case of Mexico, public policies recognize both the need to accelerate economic growth, and the role played by the creation of competitive companies in increased productivity. They also recognize that the educational level of the people affects the potential for adopting and developing the technologies that are necessary for increasing *productivity*.

PRELIMINARY FINDINGS

With the aim of verifying empirically how viable it is to foment the performance of SMEs in general in Mexico by creating gazelle, *spin-off* and *born-global* firms, a review was conducted of the statistics on these types of SME. On the basis of this work it was decided to conduct several case studies, as adopting a more conventional approach would not be possible due to a lack of suitable data bases.

A precedent had been set for our empirical work by a previous study on “university spin out” companies (USO) which was prepared at the Autonomous University of Barcelona, la Universidad Autónoma de Barcelona (UAB), Spain, in 2007 (Fong 2009) and produced multiple case studies including the analysis of five

USO created at the UAB.

For the current research project the aim is to replicate the experience gained in the previous study, obviously making the necessary adjustments to suit conditions in Mexico, but intending to make good use of the instruments that have already proved their efficacy. Further, the use of these instruments will allow us to make comparisons between the Mexican and the Spanish experiences which will give the study a wider base for making generalizations.

Following the same logic, the plan of research to be followed is one of multiple case studies. The reason for adopting this methodology is that it is the most suitable for analyzing the variables set out in their Resources View of the Firm (RVF) by Rouse and Daellenbach (1999) to explain competitive advantage. In the case of spin-off firms this advantage is associated with the technological innovation whose exploitation explains the creation of the company. But this methodology is also suitable for adopting a longitudinal approach to complex and evolving phenomena, such as the creation and consolidation of USO firms and in particular of the founding group.

Moreover, evidence will be obtained by sticking to the various criteria that can guarantee the reliability of the study and can be triangulated in order to make sure they are objective (Yin 1989). The selection *spin-off* firms originating in universities will be made following the typology proposed by Pirnay et al. (2003) as it makes it possible to differentiate clearly between technologically based firms with high growth potential (also known as gazelle firms) together with companies having the potential of internationalization from the very start (known as *born global* firms), and those where the knowledge tacitly accumulated in a university is exploited in the realm of business, which are assimilated into “lifestyle” companies.

The protocol or study plan to be used is divided into three parts, each of which is made up of a set of questions to be identified and answered by the researcher (see **Table 10** where the principle topics to be examined are presented. There are specific instruments for conducting the semi-structured interviews and the activities of direct observation, but these are not specified in the present document due to restrictions of space):

We are currently at the stage of choosing the right case studies for the project.

Table 10: Summary of the questions included in the study plan

Activity I Identification of cases for the study.

- 1 . Antecedents and general characteristics of the firm.
- 2 . Strategic position.
- 3 . Characteristics of the industry it works in.

Activity II Topics relating to the formation of the organization.

- 4 . Value chain of the product.
- 5 . Level of participation.
- 6 . Perception of efficiency in how it is run.
- 7 . Perception of strengths and weaknesses.

Activity III Outline of the resources and organizational capacities of the firm.

- 8 . Objectives of the company from the point of view of the entrepreneur
- 9 . Identification of attributes that will provide support for the company's competitive advantage.
- 10 . Sustainability of the competitive advantage.
- 11 . Identification of organizational capacities upon which the competitive advantage of the firm is built and its future tendencies.
- 12 . Analysis of the relevant organizational capacities from the point of view of the RVF.
- 13 . Identification of strategic resources from the point of view of the RVF.
- 14 . Analysis of the relevant organizational capacities from the point of view of the RVF.

Also for the study of the *Born Global* companies multiple case studies will be used, but this study will, additionally, make use of instruments of a quantitative nature. A specific questionnaire is being prepared at the moment, but a pilot case has already been conducted (the report of which is currently being arbitrated for the JIBS²⁾), as has the quantitative analysis of the data base of a study made of an exporting SME in the Mexican state of Jalisco.

Among the findings to date the most notable is that *born-global* firms in Jalisco do not necessarily have a technological advantage or belong to a highly innovative sector making intensive use of technology, but they do have certain strategic resources based on knowledge, fundamentally grounded in the figure of the entrepreneur (networks of contacts, specific knowledge of international markets, etc.) and they have managed to be innovative even when they belong to traditional sectors such as confectionery (cakemaking) or confection (dressmaking).

2) Journal of International Business Studies, <http://www.palgrave-journals.com/jibs/index.html>

CONCLUSIONS

Is encouraging the formation of gazelle, *spin-off* and *born-global* firms the right strategy for making SMEs successful in Mexico? In theoretical terms the answer is plain, as these types of firm have the appropriate characteristics for being successful in the market and to provide an example to the rest of the SMEs.

Empirically speaking, the answer is much more ambiguous, although it must be admitted that we are only at the initial phase of the field work and the following reflections must therefore be considered preliminary and to refer to the exploratory phase of the study. In the field work conducted in the Metropolitan Zone of Guadalajara, the state capital of Jalisco, it has been possible to identify the creation of companies of the three types mentioned, but, the lack of proper data bases has meant that research has had to be conducted by means of case studies.

Among the case studies made, the clearest tendency to have been observed is for the creation of *born-global* companies. This might be explained by the fact that the indiscriminate removal of trade barriers, known as trade liberalisation or opening, followed by Mexico in the last few decades, has forced SMEs to internationalize as a survival strategy, but also as a strategy for success.

Contrary to what was expected, the *born global* firms observed do not necessarily have a technological advantage or belong to a sector that is highly innovative or making intensive use of technology, but they do have some strategic resources based on knowledge, basically rooted in the figure of the entrepreneur, and they have managed to be innovative even though belonging to traditional sectors.

Although it is still necessary to go into the subject at greater depth and widen the empirical support of this work, findings such as this allow us to infer that to propitiate the success of the SME in Mexico, it is not enough to reduce the red tape associated with the creation of companies and improve access to finance, though these aspects are certainly important for the working of the firm, as it is also necessary to pay attention into getting present and potential entrepreneurs to develop various capacities important to the success of the company.

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