

The influence of Tics for the Development of SMEs (Case of Aguascalientes Mexico)

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ABSTRACT

The objective of this research is to identify the influence of the use of Tic's in the development of SMEs and it is considered that the use of information technologies can lead SMEs to generate innovation in products, processes or controls and has detected that the use of Information and Communication Technologies Tic's in SMEs is an essential element in the integration of the basic activities of the operation, since the economic activity of SMEs requires systems that allow them to remain in the market , to be at the forefront, and of course to generate a performance; This research has shown through the analysis of the empirical evidence of the literature studied, that the use of Tics tools as a means of administration and operation of SMEs could improve the performance and development of SMEs.

Key Words: (SMEs, Use of Tics, Development.)

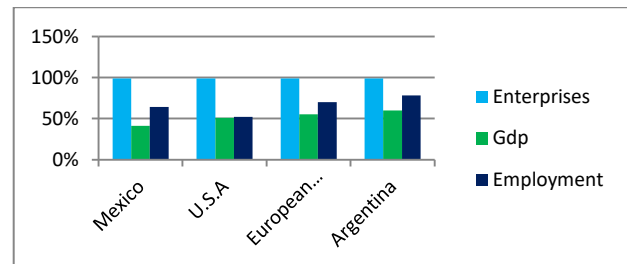
1. INTRODUCTION

It has been a worldwide concern the development and permanence of SMEs in the market given their high contribution in basic economic indicators, such is the case that in Mexico has a contribution in GDP 42%, in the number of jobs 61% and in the number of establishments in operation 99% at national level, and through the knowledge acquisition on ICT tools for SMEs administration and operation, they could become more profitable and to develop rapidly avoiding their premature death.

1.1 Problem Statement.

The high level of mortality of the SMEs is a problem for the economy of the developing countries, since it depends largely on the situation in which SMEs are found as they contribute more than 42% of GDP and generate more than 61% of active jobs, so what happens to SMEs is having an impact on the economies of these countries as it's presented in the next graphic.

**Graphic No. 1
Economic Impact of SMEs**



Source: Small and medium size enterprises OECD June 2002

As shown in the graph No.1, SMEs represent a significant contribution to the economies of countries, since their contribution is very high in terms of GDP, employment and number of firms, as this involves the livelihoods of millions of families who depend on permanence of SMEs to ensure their survival and that of their families.

The next table shows the size of SMEs based on number of employees, level of sales and by sector.

**Table No. 1
SMEs Classification.**

Stratification					
Size	Sector	Number of workers	Annual Sales (m p)	Limit maximum combined*	
Micro	All	Till 10	Till \$4.00	4.6	
Small	Commerce	Since 11 Till 30	Since \$4.01 Till \$100	93	
	Services and Industry	Since 11 Till 50	Since \$4.01 Till \$100	95	
Medium	Commerce	Since 31 Till 100	Since \$100.01 Till \$250.00	235	
	Services	Since 51 Till 100			
	Industry	Since 51 Till 250	Since \$100.01 Till \$250.00	250	
Source: Federation Official News December 28, 2013					

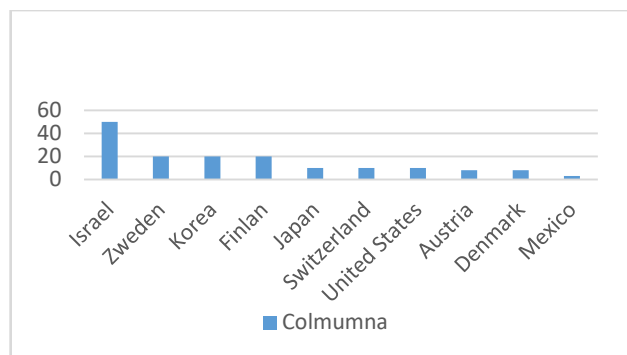
The number of workers in SMEs enterprises is from zero to 250 in all sectors. Commerce, Services and Industry and that represents in Mexico more than the 50% of Mexican workers who works in SMEs enterprises, that means a very significant percentage, becoming more significance the SMEs enterprises.

2. THEORETICAL FRAME WORK

2.1 Innovation, science and technology.

The low levels of innovation in Mexico can be attributed to the existence of an unfavorable framework and to deficiencies in the governance of the Mexican innovation system. This explains the persistence of an insufficient level of public and private investment in the matter. The level of competition remains low in strategic sectors for innovation such as telecommunications, energy production and distribution and transport. It is essential to improve the capabilities of human capital at all levels and in all sectors of the economy. New technology-based companies must have better access to private financing. There are still many regulatory barriers that hinder business activity, and deficiencies in corporate governance reduce incentives to promote innovative activity as it's shown in the next graphic in which it's presented the low level of investment in R&D in Mexico, impacting in very low innovation due to lack of technology use.

Graphic No. 2
Intensity of Development & Research



Source: OCDE, Science, Technology and Industry Indicator 2009.

Mexico should make budgetary efforts to support investment in R & D and innovation, introducing reforms aimed at guaranteeing greater expenditure efficiency: greater dependence on direct support, instead of tax incentives; simplification and restructuring of

direct support systems; and the expansion of the programs in order to improve synergies between public and private R & D in areas priority, such as health, energy, water management, food supply, etc., based on the use of technology and Informatics.

2.2 The use of ICTs in SMEs.

[1], They discuss the importance of ICT among SMEs in terms of changes in production and the process of organization, the public and private institutional network and its advantages to create social capital.

It also discusses the incorporation of ICT in the internal and external management of SMEs, the imbalance between the infrastructure of ICT and software applications and the weakness of the institutional network as determinants of the limited use of ICT to expand skills SMEs.

The basic axes are: a) Identify the role of SMEs to improve the application of the national competitive strategy and ICTs; b) Analyze the effective articulation between the public-private institutional network to incorporate, develop and adopt new technologies.

2.3 ICT's use in Aguascalientes Mexico.

[2], Mention that currently the use of Information and Communication Technologies (ICTs) in SMEs (small and medium enterprises), are an essential element in the integration of the basic activities of the operation, since the SME economic activity, requires systems that allow them to remain in the market, to be at the forefront, and of course to generate a performance in accordance with the expectations of organizations. In this work, based on a sample of 400 companies from the State of Aguascalientes, Mexico, the influence that ICTs have on the performance of SMEs is analyzed. The results obtained show a positive influence on the performance of SMEs, with the use of ICT at the core of the organizations what can constitute a competitive advantage.

[3], Comment that Worldwide globalization processes as well as rapid development of information and communication technologies (ICT) significantly determine modern business operations in each and every organization. The basic concept of mass customization as a new trend is to increase the variety of individually tailored products/services to meet customer needs without a large increase in production costs. It requires a highly flexible production technology though.

Developing such technologies can be expensive and time-consuming. Clouds enable delivery of mass customized services/information in the "Data to Information to Knowledge" chain. The aim of their paper is to introduce the way how the mid-market can utilize Public Cloud computing in conjunction with a secure Private Clouds and further more to propose a framework for mass customization and its collaboration in Clouds, I consider that the use of public cloud or secure private

cloud is a new technology which could improve the development of SMEs.

[4], Mention that in the new social media context, it is gradually more common to say that each party can itself be considered a media content provider, firms included (through their brand pages). This tendency is reflected in a rising professional field called "content marketing". Their study incorporates the perspective of small and medium-sized enterprises (SMEs) into the scope of social media (SM) as a marketing communications and media content distribution system. In an exploratory content analysis of 20 official SM brand pages with 1281 analyzed posts the authors study how SMEs respond to the advent of a new paradigm of marketing communications with special attention to their usage of media-specific contents. SM impels companies to eventually rethink the traditional one-way communication flow of their marketing messages and to incorporate a new, two-way communication into their marketing strategy, where (their engaged and involved) users can create, modify, share and discuss content related to the firm's activity. In The study's preliminary results show that diffusing content generally acts for SMEs as a facilitator to involve fans by offering a thematized space for them to manifest themselves in company-related topics. Therefore, content adds to the firms' possibilities of brand positioning by offering a reflection of fans' company- and content related behavior, which is a supplementary source of information. This knowledge of diffusing content is a significant facilitator for the SMEs in order of showing their products and gain market.

[5], Suggest that Managing health and safety at work involves considering two internal processes common to all organizations: knowledge and human talent management. These two processes are affected by globalizing phenomena that have an effect at the economic, environmental, and occupational levels. This is especially true for countries like Colombia. Their objective was to provide an educational alternative that contributes to knowledge management in SME's in order to improve the working conditions and to support their innovation processes. Methodology: an exploratory and descriptive study. We start by analyzing the concepts related to the improvement of working conditions and experiences from previous projects involving the university-industry relationship. This is done from the systemic viewpoint that characterizes the ergonomics and interdisciplinary perspectives of the professional practice of industrial design. Result: the proposal was approved by regional institutions wishing to conduct a pilot study, and is based on principles establishing health promotion at the workplace. It also includes a methodology for affecting the technological core of companies and contributes to the empowerment of the personnel involved. Conclusion: it is mandatory that organizations express their support and commitment through a policy that facilitates the active participation of employees in these processes. Based on this article It is considered that the globalizing phenomena have an effect at the economic environmental and occupational levels

because of the ICT tools allows the SME's to know the working conditions around the world and this could be used as a health promotion at the work place contributing.

The author [6], comment, due to the development of knowledge society, there is increased demand for using Information Technology (IT) in an entrepreneurship as well as using knowledge management (KM). To achieve high competitive capacity, it is necessary to promote continuing education in small, medium and micro enterprises (SMME's).

According with [7], they discuss the conditions of the small and medium enterprises (SME's) that are hampered by many major obstacles in Africa. The contribution of African enterprises in the global trade is only one percent even if it has vast human and natural potentials. The problems with the SME's can be traced to the lack of initiative, poor management and inadequate knowledge on trade policies and quality standards. Africa believes that political and economic strategies will help to achieve better economic conditions for SME's enterprises.

[8], Considers that Export's promotion emerges as a wide answer to SME's need to face the great complexity of exporting and the lack of resources, capacities, experience and knowledge that placed them in a disadvantageous competitive position in international markets. Thus, the exports promotion has become a Government's priority policy in developed, recent industrialized, and especially in developing countries to consider strong implications that export has in a nation's economic politics. In this context, this research, through the case study methodology, proposes a model to determine the influence exerted by export's promotion during the industrial SME's exporter process in a Colombian region facing a series of barriers to develop export activities. The lack of resources, capacities, experience and knowledge, represents barriers for the SME's can export their products in an international market, these barriers have been stopping the SME's development, then it's mandatory exert export promotion for the industrial SME's. for to remain in the market and grow in the level of operations.

3. CONCLUSIONS

Based on the analyzes carried out on the collected literature, it is concluded that the use of Information and Communication Technologies (ICTs) in SMEs (small and medium enterprises), are an essential element for to make efficient operations that constitute the bases for grow and make the development of the SME's since it's the actual tool that any enterprise and any country or city should use for to make international marketing and commerce which represent the base for to remain in the market and grow the level of their operations.

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