

# Chapter 10

## Influence of ICT in the Industrial Sector MSMEs

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### ABSTRACT

*Access, use and adoption of information and communication technologies by enterprises constitute an important innovation that could improve their productivity and competitiveness, provided that other policies adopted oppose obstacles or restrictions that these enterprises deal with for their own development. The Papaloapan Basin region is characterized by a wide range of economic activity. The city San Juan Bautista Tuxtepec is found within this region; which is a convergence point for the economic activities of the states of Oaxaca, Veracruz and Puebla, since it has an important activity in the primary, secondary and tertiary sectors. In this chapter, the influence of information and communication technologies on micro, small and medium enterprises in the industrial, commercial and service sector of this important region is presented, based on a classification of the run of businesses, considering their management, financial and marketing activities.*

### INTRODUCTION

In the business sector, the use and adoption of Information and Communication Technologies (ICT) generates earnings of an economic nature, not only for enterprises, but also for the general economy. In this sense, as mentioned in (Meza, 2014), ICT has proven to be one of the sectors with the highest growth rate in the Mexican economy. This claim is supported by the fact that ICT induced growth has been above 9.5% for that past two years and accounts for 5.6% of the Gross Domestic Product (GDP).

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Furthermore, ICT represents an opportunity for economic due to several factors such as trade agreements, a high degree of acceptance by the business community, a highly qualified workforce, geographic location and competitive costs.

On the other hand, part of the access and use of new technologies linked to the Internet allow businesses to compete in a market that is increasingly open and competitive, to generate autonomy, and to encourage collaborative learning. This has led to a better understanding of the environment, and has facilitated the adoption of new strategies to fully capitalize on these benefits.

In this chapter, we present the influence of ICT on Micro, Small and Medium Enterprises (MSMEs) within the industrial sector of the Papaloapan Basin. To illustrate this effect, the chapter concludes with a case study based on the city of San Juan Bautista Tuxtepec. Tuxtepec is the economic center of the region and the second most populous city in the state of Oaxaca. The impact of Tuxtepec on the industrial, commercial and service sectors of neighboring municipalities extends into the neighboring states of Chiapas, Guerrero, Puebla and Veracruz. This investigation was also carried out to determine if MSMEs are yet able to access, use or exploit ICT to improve productivity and competitiveness.

This knowledge is significant because, at present, the vast majority of these enterprises are still in the micro category with only a very small percentage of ever rising to the medium-sized classification. There was also a need to better understand why so many new enterprises fail shortly after their inception.

This chapter is structured as follows: The evolution of ICT within the business sector, where we talk about ICT background, technological tools for business management, entrepreneurial Web pages, social networks and marketing; Related work, indicating the differences with this chapter; The economic activities of MSMEs as they pertain to ICT evolution within the industrial, commercial and service sectors; Finally we present the case study of the influence of ICT in MSMEs Papaloapan Basin, where the classification indicated turns business occurs, the application of the instrument of data collection and diagnosis of the use of ICT.

## **ICT EVOLUTION IN THE BUSINESS SECTOR**

### **ICT Background**

The decade of the seventies represented the technological development consolidation for the most developed countries, this due to, as pointed by Blanco (2008), service sector industry acted on digitalizing all the existing systems of data transmission and in to some extent, it also meant the practical beginning of globalization. So the accelerated development of the Information and Communication Technologies (ICT) began as part of the digitalized era, globalization, and the adequacy and the new way of transmitting and receiving information. Something had changed in a drastic and almost sudden way. The old data transmitting system proceeded new way of interacting, the infrastructure and the technical support were aligned in such a way that the access was reduced to the binary language. These new technologies brought with themselves implicit benefits as speed of transmission where geographical barriers were down casted. The long distances and the time of replying were displaced from the economic, political and cultural plan. Limits on the amount of data, as well as its processing went down on history. A new way of interconnecting the whole planet had arrived and in this way, information and communicative flow increased considerably. In a short lapse of time, electronic media have taken the control of modernity for energizing the world interactivity. For some countries, organizations and institutions, technology

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