

# Chapter 10

## Management and Strategies for Digital Enterprise Transformation: Proposal for the Utility of Neuro- Economics in the Services of ICT of the Exponential

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### ABSTRACT

*The chapter explores the utility of neuroeconomics in decision making and behavior. Scientific knowledge will be advanced in the need for the application of neuroeconomics focused on one of the services of the information and communication technologies (ICT) of companies, that is, e-commerce of exponential artisanal SMEs of women entrepreneurs, by developing a proposal for a business model to increase the possibility of growth of their companies at the level national and international level. The methodologies used were deductive, exploratory, descriptive, correlational, and documentary. Neuroeconomics have the potential to explain the phenomena that are considered as a deviation from the prediction or behavioral bias of decision-making models in economic theory. The study is quantitative using primary and secondary sources for research.*

### INTRODUCTION

Neuroeconomics is an emerging discipline that combines the findings and modeling tools of neuroscience, psychology and economics to explain the behavior of human choice (Glimcher, 2003).

The aspects in neuroeconomics that propose a new significant episode of change, according to Glimcher and Rustichini (2004) are:

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- Integration of behavioral work carried out by economists, psychologists and neuroscientists, for the development of a unified theory of the choice of behavior.
- Technological advances that allow us to look at the brain will eventually replace the simple mathematical ideas of economics with more detailed neuronal descriptions.

Within the framework of the above considerations, SMEs in Mexico constitute 95% of established companies and contribute 23% to Gross Internal Product, but they have a series of problems that cause 75% to close their operations after 2 years in the market (INEGI, 2010), and its chance of success is on average from 25% to 30% below the world average that is 40% (Fernández, 2010). It is appropriate to highlight that 47% directed by the female gender, contributing 37% of GIP, also contribute 70% of GIP and allocate 70% of their income to the community and family (González, 2016). Despite this, Latin America has the highest rate of business failure run by women. In Mexico alone, 2.2 million formal companies 17.63% are directed by the female gender, in addition, that 50% have a profit of less than \$ 50,000 USD compared to 25% of the companies that operate men (Power & Magnoni, 2010).

Artisan SMEs are a major driver of the economy where 47% are run by the female gender, contributing 37% of GDP, also allocating 70% of their income to the community and the family as opposed to men who contribute only between 30% and 40% (González, 2016). Despite this, Latin America has the highest rate of business failures managed by women. In Mexico, only 2.2 million formal companies 17.63% are run by the female gender, and 50% have a profit of less than \$50,000 USD against 25% of companies operating men (Power & Magnoni, 2010).

The artisanal sector is a “global creative economy”, representing what can be exemplified as a country that would symbolize the fourth largest economy and workforce in the world according to the Inter-American Development Bank (IDB). It is a global sector that generates revenue of \$34 billion per year, and only developing countries provide 64% of global exports. According to the United Nations organization for education, science and culture (UNESCO, 2001), it states that the artisanal sector plays a predominant role in economic development and in the fight against poverty. In addition, preferences in market consumption are changing because they care about the origin of the product, which make it and how it was manufactured, modifying their preferences of mass-produced products at hand, the only one of its kind and the independent design (INDEGO Africa, 2016). They have a long way to go to achieve their full potential in employment and income generation to achieve greater economic growth in developing countries.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2001), it states that the artisanal sector has a predominant role in economic development and the fight against poverty, but they lack a long way to go to achieve its maximum potential in generating employment and income to achieve greater economic growth in developing countries. The artisanal sector has great untapped potential in e-commerce that can generate a greater amount of income and jobs that produce a social and economic impact on entrepreneurs worldwide and especially women (Foote, 2015).

The objective in the research is the management and strategies for digital enterprise transformation by using neuroeconomics, a model proposal focused on understanding consumer decision-making on one of the services of the information and communication technologies of companies focus in electronic commerce of exponential artisanal SMEs of women entrepreneurs will be developed.

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