

## Chapter 54

# Sustainable Performance of Tunisian SMEs in Industry 4.0

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### ABSTRACT

*The research aims to know the impact of sustainability orientation on sustainable performance. The data has been collected through a survey and the probability-random sampling technique has been employed. The study sample is micro and small enterprises in Tunisia. The organizational level is the unit of analysis, which are the owners of these enterprises. It has been concluded that managers' orientations have an influence on environmental and social performance, but their orientations towards sustainability did not impact economic performance. The study has suggested that future research could investigate different organizations irrespective of their size and industry that would make it easy to generalize results.*

### INTRODUCTION

Enterprises have faced challenging circumstances to maintain their competitive positions in the business arena (Ubius, Alas, & Vanhala, 2009). Practitioners and academics have shown a noteworthy concern about environmental challenges (Iqbal, Ahmad, & Ahmad, 2018). Rules of games are changing over time, and enterprises have to cope with such a dynamic environment to keep their success. However, performing sustainably could illustrate an organization social legitimacy, and it improves clients' loyalty, which in turn improves the firm's market value (Luo & Bhattacharya, 2009; Fisman, Heal, & Nair, 2008). Moreover, sustainability contributes to the reduction of costs for daily bases operations; for instance, energy consumption (Maletic et al., 2015; Schaltegger & Burritt, 2010 ).

However, different variables can affect sustainable performance of firms such as sustainability awareness because it is viewed by many managers as a key driver of desirable achievement of organizations (Bos-Brouwers, 2010). But, the central concern is the commitment of the managers to ecology and social

DOI: 10.4018/978-1-7998-8548-1.ch054

issues (Galpin, Whittington, & Bell, 2015). Several studies show that people backgrounds affect their choices and decisions consequently, hence, affect an enterprise outcome (Okoreley & Nkrumah, 2012; Kassel, 2012). As a result, it improves the economic value (Maletic et al., 2015). Nevertheless, desirable achievements may not be obtained without the social attitudes of enterprises leaders (Ciemleja & Lace, 2011; Ciasullo & Troisi, 2013).

Notably, the majority of background studies have investigated managers among larger corporations, and we know little about smaller firms' owners' orientations (Windolph, Schaltegger, & Herzig, 2014; Gao, 2017). Besides, these attempts are carried out in fragmented attempts such as only one aspect of sustainability (i.e. environment, social, economic) (Papagiannakis & Lioukas, 2012). This represents an obvious gap in the domain of sustainable performance in the context of SMEs wherein the owners-managers often are ones who are responsible for enterprises plans and decisions (du Plessis & Grobler, 2014; Baumgartner, 2014). Hence, despite those contributions, examining all sustainable dimensions in single research could enrich its field (Harik, El-Hachem, Medini, & Bernard, 2015).

Thus, the study aims to address previous literature gaps, mainly, to investigate the relationship between sustainable performance (economic, environmental and social) and sustainability orientation across smaller enterprises.

## **TUNISIAN'S SMES IN INDUSTRY 4.0**

Disruptive technologies of industry 4.0 such as big data, robots, 3D printing, artificial intelligence, vertical and horizontal integration have made the market highly dynamic (Iqbal & Nawaz, 2019). Tunisian's small and medium enterprises face high challenging circumstances to cope with the dynamic- global environment (Harik et al., 2015). These enterprises mainly across the industry sector depend significantly on exporting to other countries (Franzoni, 2015). However, they should take into account factors such as revolution on the industry, and that they are in the era of the fourth industry radical evolution (Franzoni, 2015). Further, enterprises can take proactive steps to keep their market share and develop them (Alikaj et al., 2017). Otherwise, remaining on current inputs and operations could not lead to better performance or even protecting their positions in the market (Franzoni, 2015). Therefore, Tunisian's SMEs have to rethink their processes to meet customers' expectations, as a result, they will be satisfied and loyal.

However, Tunisian's SMEs should have tools to secure needed information, and they have to be flexible to adapt and change any process (OBG, 2016). Due to it, they depend widely on exportation, their speed to adapt and/or adopt new procedures and ideas are crucial to keep their clients satisfied (OBG, 2016). Further, many SMEs in Tunisia are dealing with other businesses (i.e. B2B) and they have to share knowledge. This sharing is based on using modern technologies; in other words, many of previous tools for contacting and exchanging knowledge with others may need to be developed or even changed (Chtourou & Triki, 2017). Thus, keeping a business effective and efficient, managers need to expand their knowledge and to take into consideration new developments in technology.

On the other hand, these types of enterprises face many challenges to cope with new technologies and accruing knowledge (El-Khasawneh, 2012). The main reason is a financial dilemma, owners believe that new techniques need more resources and they do not have enough budget to do so, which lead them to adopt changes incrementally rather than radically (Franzoni, 2015; Harik et al., 2015). Further, they argue that they need more employees for new technology and machines. In other words, the time for hiring and/or training workers can be seen to have more cost at least for the short-term (Chtourou

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