


Chapter 6

Elevating Small Business Performance With Emerging Technologies and Artificial Intelligence in Africa

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ABSTRACT

A sustainable economy, particularly in the context of the fourth industrial revolution (4IR), necessitates a robust and globally competitive manufacturing sector. However, our understanding of how this emerging and rapidly changing technology impacts corporate performance, especially regarding turnover in small enterprises, may be lacking. This chapter examines the impact of developing technologies on the performance of small manufacturing enterprises, with a particular emphasis on

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Nigeria, the largest consumer market in Africa. Research indicated that developing technologies significantly influenced the business performance of SMEs in Nigeria. The research concludes that new technologies can improve the business performance of small manufacturing enterprises. Small businesses are advised to leverage AI to create disruptive innovation through innovative business models and processes, potentially transforming the manufacturing industry and global competitive landscape.

INTRODUCTION

A sustainable economy, particularly during the fourth industrial revolution (4IR), necessitates a robust and globally competitive manufacturing sector. The strategies for survival of manufacturing SMEs in the new normal and beyond, amid intense global competition driven by the Fourth Industrial Revolution (4IR), necessitate the effective adoption of advanced technologies. Concurrently, the automation of numerous white-collar jobs, prompted by 4IR technologies and Covid-19 survival measures, has resulted in a dual disruption within the labor market; the precise effects of the 4IR paradigm on employment remain unpredictable at this time. Small and medium-sized enterprises (SMEs) have emerged as the most dynamic category of companies inside the European Union (EU) and are the foundation of the European economy (Dabic et al., 2016), since they account for 99% of all business entities in the EU (Uwem et al., 2021; Müller, 2019). Emerging innovations and technologies were initially analyzed and are now projected to significantly influence future smart factory development in terms of technological advancements, as well as the introduction of creative goods and business models. These principles allow manufacturing firms to lower expenses, augment flexibility and productivity, elevate quality, and accelerate business operations (Brunelli et al., 2017; Junaid, 2020).

In the United States in 2020, over 3 billion workers worldwide were to be overseen by robotic supervisors, and 59% of US manufacturers had implemented various forms of robotics technology and cloud computing advancements that facilitated sustained innovative leadership (World Economic Forum, 2015). Experts forecasted that 10% of warehouse personnel will be supplanted by autonomous robots by 2021, and by 2025, manufacturers anticipated an average efficiency increase of 12% from Industry 4.0 implementations. Certain manufacturing SMEs in many economies are progressively embracing Internet and web-based technologies for social enterprises and the development of innovative business models (Omotosho, 2020; Shaltoni, 2017). Despite these advancements enhancing the current situation, the entrenched problems in Emerging and Developing Economies (EMDEs) persist in obstructing the adoption and application of technology (Makiwa & Steyn, 2018; Omotosho,

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