Chapter 6
Navigating the Future of Disruptive Technology and Business Turnover in SMEs in Africa

Timilehin Olasoji Olubiyi
https://orcid.org/0000-0003-0690-7722
Babcock University, Ilishan-Remo, Nigeria

Olamide Ayodeij
https://orcid.org/0009-0001-0299-7444
D.S. Adegbenro ICT Polytechnic, Itori-Ewekoro, Nigeria

Arunesh Parashar
https://orcid.org/0000-0003-4400-9894
Dev Sanskriti Vishwavidyalaya, Haridwar, India

Titilayo Doris Ibikunle
Olusegun Agagu University of Science and Technology, Okitipupa, Nigeria

Souvik Banerjee
https://orcid.org/0000-0001-9988-8887
Management Development Institute, Murshidabad, India

Emmanuel Imoh Uwem
Veritas University, Nigeria

Bibin Xavier
https://orcid.org/0000-0001-6303-2067
Marian College, Kuttikkanam, India

ABSTRACT

A sustainable economy, especially in the period of the Fourth Industrial Revolution (4IR) desires a strong and globally competitive manufacturing sector. Undoubtedly, the strategies to survive by manufacturing SMEs in the new normal and beyond in the face of fierce global competition imposed by the 4IR include a successful adoption of advanced technologies. Therefore, this chapter investigates the effect of disruptive technology (DT) on business turnover of manufacturing SMEs focusing specifically on Nigeria, the largest consumer industry in Africa. This study adopted

DOI: 10.4018/979-8-3373-3109-6.ch006

a survey research design. A simple random sampling technique with proportionate allocation was used to select the respondents. Findings revealed that disruptive technology had a significant effect on business turnover of SMEs in Nigeria. The study concludes that disruptive technology can enhance the business turnover of manufacturing SMEs, particularly in emerging economies. It is recommended, among others, that SME owners' adoption of disruptive technology be considered to improve revenue streams and business turnover.

INTRODUCTION

A sustainable economy, especially in the period of fourth industrial revolution (4IR) desires a strong and globally competitive manufacturing sector. Undoubtedly, the strategies to survive by manufacturing SMEs in the new, normal and beyond in the face of fierce global competition imposed by the 4IR include a successful adoption of advanced technologies while the majority of white-collar jobs have been automated due to the technologies of 4IR and Covid-19 survival measures, creating a double-disruption scenario in the labour market; the exact impact of 4IR paradigm on jobs cannot be predicted at the moment. SMEs became the most propulsive set of companies in the European Union (EU) and represent the backbone to the European economy (Dabic et al., 2016) since European SMEs have micro, small, and medium-sized enterprises, representing 99% of all EU business ventures (Uwem, et al., 2021; Müller et al., 2018). Disruptive innovations and technologies were initially analyzed but are now being estimated to have an important impact on future smart factory development in the areas of technological changes; the emergence of innovative products and business models too? These concepts enable manufacturing enterprises to reduce costs, improve flexibility and productivity, enhance quality, and increase the speed of business processes (Brunelli et al., 2017; Junaid, 2020).

In the United States of America (USA) during the year 2020, more than 3 billion workers globally were to be supervised by a robo-boss and 59% of US manufacturers had been using some sort of robotics technology and cloud computing sort of developments which provided access to sustaining innovative leadership (World Economic Forum, 2015). Experts predicted that one in ten warehouse workers would be replaced by autonomous robots in the year 2021, and by year 2025, manufacturers expected an average of 12% in efficiency gained from Industry 4.0 implementations. Some manufacturing SMEs in some economies are gradually adopting Internet and web-related technologies for social businesses, and for the invention of new business models (Omotosho, 2020; Shaltoni, 2017). Though these developments are improving the status quo, the systemic challenges in these Emerging and Developing Economies (EMDEs) continue to inhibit the adoption and implementation of