


Chapter 10

Strategies for Small Business Resilience and Technological Adaptation Towards Embracing Industry 5.0 in Nigeria

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ABSTRACT

The advent of Industry 5.0 that combines advanced technologies like robotics, artificial intelligence, and cyber-physical systems seamlessly would be an opportunity and challenge for small businesses. This chapter looks at the vulnerabilities that small businesses may have to face during this technological paradigm shift and gives strategic ways in which these risks can be mitigated. It then digs into the fundamental tenets of Industry 5.0 by assessing the importance of technology adoption and adaptation in ensuring resilience as well as competitiveness among small businesses. Additionally, EdTech and other innovative technologies have been identified within this chapter to assist in upskilling and reskilling owners of small enterprises & their employees thus developing a culture of continuous learning plus innovation. Finally, this chapter outlines a full roadmap that small enterprises can follow to adopt industry 5.0 by giving them practical strategies and suggestions on how they can remain viable and sustainable in the face of technology-driven business world.

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INTRODUCTION

Regarding the technological landscape, starting with industry 5.0 signifies its paradigm shift that is marked by the blending of robotics, artificial intelligence, and cyber-physical systems into a single entity (Nahavandi, 2019). This paradigm is momentous in that it is a tapestry of opportunities and challenges for small businesses in Nigeria which form the bedrock of the economy of the nation. In Nigeria as this new industrial revolution beckons, adaptability and resilience in these enterprises are central to shaping the country's economic direction towards global competitiveness. The chapter explores possible weaknesses that small Nigerian firms may face while going through this technological changeover. Our objective is to offer a comprehensive analysis on Industry 5.0's multifaceted impact on Nigerian business ecosystem so as to expose small business owners, policymakers and other practitioners who require certain understanding tools for navigating through this transforming landscape.

Industry 5.0 technologies when integrated within small businesses result into enhanced efficiency in operation, access to global markets along with data-driven decision-making capability they never enjoyed before (Maddikunta, 2021). Though, there are also some big concerns about cyber security, the changing workforce and more cutthroat competition that comes with this leap. This may leave small firms, often with very limited resources, to grapple with how much it will cost them to put in place new technologies and have their employees reskilled so as to keep up with the competition (Kumar & Suppiah, 2023). Despite these problems, companies that successfully manage their way through it can enjoy increased business efficiency due to streamlined operations; heightened productivity; and improved market responsiveness. To be successful in the new industrial era small businesses must find a way of embracing technology while at the same time using their strengths and ability to change work behavior (Nahavandi, 2019; Eniola et al., 2023). This has necessitated a strategic thought which includes targeted investments in emerging technologies, promotion of an innovative culture and creation of partnership between industry leaders and universities. The government can create an environmentally supportive atmosphere, which will allow small businesses to thrive in the Industry 5.0 era through the implementation of policies that support investment in infrastructure and provision of incentives for adoption of technology.

In doing so, small Nigerian firms can be at the forefront of this technological revolution. This guarantees not only their survival but also leads to sustainable economic development and innovation throughout the country. The following parts will explore these dimensions more deeply and offer a broad examination of what Industry 5.0 framework entails, how Nigeria's small businesses are critical to its

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