


Chapter 7

The Adoption of Business Intelligence as a Competitive Strategy Among SMEs: A Developing Country Study

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ABSTRACT

Business intelligence is central to the competitiveness of small and medium scale enterprises (SMEs) in the developing world. Guided by Porter's five forces model, this chapter discusses how SMEs in the developing world may harness various business intelligence information systems to gain competitive advantages over their competitors. The results of the review show that competitive rivalry among enterprises, influenced by the bargaining power of customers and suppliers, the threats of new entrants, and substitute products, influence the competitiveness of enterprises, and their influence is stronger among SMEs in the developing world. Challenges faced by SMEs in implementing business intelligence solutions include lack of funding, managerial support, and expertise. The chapter recommends investment and training in the development of business intelligence solutions for SMEs in the developing world. It further recommends more research on the acceptance and development of these technologies.

INTRODUCTION

Many SMEs in the developing world have faced challenges that hinder their competitiveness. Many of these challenges are related to stiff competition as a result of the globalisation phenomenon which has eliminated geographical boundaries in the ways enterprises do business. In globalised economies, characterised by competitive rivalry, SMEs in the developing world often suffer shocks that force them to embrace new business models and technologies. While this is meant to enable them to respond to competitive threats and to develop competitive strategies, such actions are mostly reactive, finding

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The Adoption of Business Intelligence as a Competitive Strategy

organisations unprepared for change, leading to sometimes undesired consequences of the adoption of these new models and technologies. This has been worsened by the digital developments of the internet that have seen the wider usage of e-commerce, exposing SMEs to competition with large multinational enterprises (Keikhosrokiani, 2020, 2022a, 2022b, 2023). In the developing world, the harsh economic environment, particularly on the African continents, and the Asian and South American regions these challenges have been worse because SMEs in these regions face challenges in bargaining for price reductions while competing with large-scale and well-capitalised corporations. Additionally, these SMEs, lack managerial practice to help them to develop their competitiveness, limiting their long-term survival with only a few companies surviving for months to a year (Kamunge, Njeru, and Tirimba, 2014; Bunyasi, Bwisa, and Namusonge, 2014). These SMEs have struggled to establish themselves among leading multinational and national corporations as a result of these challenges and environmental threats against their competitive strategies and efforts. Despite such challenges, SMEs have remained a driving force for nations' economic development employing the majority of citizens and earning foreign currency for nations, particularly those in the developing world. According to Anggadwita and Mustafid (2014) in Indonesia for example SMEs contributed around 60% of the GDP and absorbed more than 97% labour force and this trend seems to be the same across the greater Asian and African communities.

The ability of SMEs to survive in an increasingly competitive global environment is largely predicated upon their capacity to leverage information as a resource (Fourie, 2015; Lateef & Keikhosrokiani, 2022). Currently, organizations that have demonstrated competitive potency are those that have recognized the importance of information and knowledge in the new economy, taking advantage of information technology to achieve high levels of efficiency and effectiveness. Mutula and Van Brakel (2006) agree that information is an important asset that gives SMEs a competitive advantage in the competitive environment because access to information plays a critical role in the informed decision-making process, making it easy for SMEs to make good competitive decisions. However, access to this information is a problem in developing countries, due to lack of ICT infrastructure.

Despite the flurry of research on SMEs' performance, there is no consensus on the factors that drive SMEs' performance and the adoption of ICTs such as BI. Various scholarly articles have investigated the performance of SMEs across different settings, from developed to least-developed countries, and utilized different methodologies (Wang, 2016). However, the research has disproportionately focused more on developed economies and in the context of developing countries (Rosenbusch, Brinckmann, and Bausch 2011). This is revealed by gaps in implementation trends on ICT innovations such as BI, between developing and developed nations (Gono, Handranath, and Ozcan, 2016). Moreover, most studies are focused on one or a few specific variables as potential determinants of SME competitive performance. This points to more scope for empirical analysis in this area, particularly for developing economies because not much is known about the combined effects of internal and external drivers of SMEs' performance (Ipinnaiye et al., 2017). Thus, there is a need to take a more comprehensive look at the drivers of SMEs as the relationship between ICTs and productivity for SMEs in developing countries has not been well established (Cataldo, Pino, and McQueen, 2020).

One of the technological solutions that has enhanced competitiveness across different enterprises including SMEs, creating new and smarter ways to improve performance, grow revenue, develop stronger customer relationships, and increase workforce effectiveness is business intelligence (BI). BI is the only key factor in achieving such results because it supports informed decision-making at every level, enabling managers, executives, and knowledge workers to take the most effective action in a given situation (Chen, Chiang, and Storey, 2012). According to Boateng (2022) therefore, for SMEs in Africa

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