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Digital Transformation in Small and Medium Enterprises: Challenges and Opportunities

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ABSTRACT

Digital transformation (DT) is reshaping business landscapes, offering significant advantages through technological advancements and data-driven processes. While extensively studied in large enterprises, DT in small and medium enterprises (SMEs) remains underexplored despite their substantial presence and economic impact, particularly in Europe and Malta. This paper aims to highlight the unique challenges and opportunities faced by SMEs in the context of DT. By reviewing current literature, international policies, and data from Maltese SMEs, the study identifies key barriers and facilitators of DT implementation. Additionally, it proposes areas for further research and policy recommendations to support SMEs in harnessing DT for competitive advantage, innovation, and growth.

Keywords: Digital Transformation (DT), Small and Medium Enterprises (SMEs), ICT Challenges, Innovation, Economic Development.

INTRODUCTION

Global literature has put forward significant advancements in line with the 'digital transformation' (DT) and the 'digitalization' processes of both large enterprises, as well as public 'smart city' and 'destination' solutions. A common characteristic between initiatives is the underlying technological backbone along with heightened data collection, processing, and analysis. Significantly fewer publications have identified DT within small and medium enterprises (SMEs). Nonetheless, the sheer volume of SMEs in Europe, up to 99%, and Malta, 96%, has long called for further research and focus on the matter. As is seen here, DT can provide a direct or indirect opportunity to empower local spillovers and further economic development and advancement in line with international guidelines and recommendations [1, 2]. SMEs, and even more so, micro- and smaller SMEs, face significant challenges in ICT-related issues and DT investments that need to be further investigated. The primary aim of this essay is to underscore DT phenomena and provide space for the diffusion of a greater understanding of roadblocks and opportunities of DT in SMEs as well as propose areas where further research may be conducted. This has not been previously undertaken, and that is the main undiscovered space to be lighted throughout this research. A review on the state of the art and international policy alongside data aggregated from Malta conducted in 2020 has been held, discussing Maltese DIH recommendation reports and semi-structured interviews. Furthermore, a legislative review is proposed, in support of a Maltese national digital strategy to ensure the acceleration of DT [3, 4].

UNDERSTANDING DIGITAL TRANSFORMATION

All industries are on the path of digital transformation, where new technologies form the crux. However, there are very few companies that are truly prepared to deal with digital transformation that comes along with the mix of integrative technologies. This digital transformation is mostly business process-driven and helps reshape the traditional business models with innovative strategies where customer requirements are the priority. Thus, digital transformation strategy is important for all companies to progress and keep pace with the digital era in this hyperconnected world. Strategies that will work on such digital transformation should deliver successful and high-performance results. Therefore, these digital transformation strategies are measured on specific criteria that are several components

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contributing to this success. The contemporary era has seen an exponential spike in information communication technology where digital transformation is the core for any organization to proliferate 10x [5, 6].

There is a very poignant difference between the underlying principles concerning the traditional processes from the digital transformation processes. In the traditional board, focus is primarily on the business function where everybody has a clear picture of how the marketing, sales or the operations of a business function in coherence. Nevertheless, digital transformation is focused on how to get this function to work in accordance with the consumer requirements. The digital drive has been seen to hugely impact the big corporates and has been advantageous to them on all terms. However, there is no such empirical study done on the digital drive affecting the small and medium-sized companies particularly. Therefore, we are eager to understand the concern and the strategies laid down by the small and medium-sized companies (SMEs) to integrate the digital strategies that potentially affect them [7].

IMPORTANCE OF DIGITAL TRANSFORMATION FOR SMALL AND MEDIUM ENTERPRISES

In today's fast-paced and technology-rich environment, digital transformation has a profound impact on every business, large and small. While digital transformation in large firms is thoroughly studied, only a limited number of papers scrutinize the link between digital transformation and small and medium enterprises (SMEs). Digital transformation has the capability to bring numerous competitive advantages for small and medium enterprises through the development of innovative business models and products/services. To leverage these opportunities and adapt to the changing environment, small and medium-size businesses are going through fundamental changes in operating modes. Such changes are driven by the need of SMEs to remain competitive and find new avenues of growth. The literature underscores the competitive advantages of digital transformation for SMEs, in terms of cost reduction, efficiency improvements and innovation. Even though SMEs face challenges in the digital transformation era, they can leverage digital technologies to drive growth and outperform the competition [8]. Digital transformation brings about numerous benefits for large firms. Building on the opportunities and challenges faced by SMEs in the context of digital transformation, multiple advantages can emerge when SMEs take a strategic approach towards IT adaption and the transformation of business processes, people and products/services. Above all, this digital age is a leveler and empowers business agility, bottom-up innovation and customer intimacy that are strategic advantages for orthodox corporations. In view of today's changing business landscape, leveraging digital technologies face SMEs to dissolve their traditional barriers for scalability, innovation and internationalization. In addition, most SMEs can take advantage of lower costs and faster implementations using off-the-shelf software and service-oriented architectures [9, 10].

CHALLENGES FACED IN IMPLEMENTING DIGITAL TRANSFORMATION

The potential benefits of digitalization or business digital transformation (DT) are well-appropriate intentions in today's world of business. Actually, 96% of companies stated that their DT investments improved their agility. However, digital transformation (DT) is difficult; it necessitates profound shifts in strategy, operations, and customer interactions, as well as drastic changes in organizational models and processes. Moreover, fifty-five percent staggeringly reported that cross-departmental cooperation frequently fails because it gets stuck in internal politics, which is frequently detrimental to projects. DT in the context of Small and Medium Enterprises (SMEs) is notorious for its high failure rate. DT is widely regarded as a critical success factor for businesses and the economy. Nonetheless, the implementation of DT in SMEs encounters countless issues [11, 12]. The present study hopes to gain a deeper understanding of the challenges that SMEs are likely to experience in implementing DT. Many researchers have identified a number of difficulties and barriers associated with the DT process in businesses. Several of these researchers go on to argue that organizations that fail to address these concerns are likely to suffer in terms of performance, revenue generation, process optimization, and the like. Pertinently in our context, however, is the fact that digital transformation is expected to deliver tremendous advantages, including the potential to upsell customers and increase earnings by 60% by 2021. Thus, these failures, whatever they may be, are expected to have a direct effect on the small and medium enterprises [13, 14].

OPPORTUNITIES ARISING FROM SUCCESSFUL DIGITAL TRANSFORMATION

With the successful implementation of digital transformation on both the business and market levels, a company is able to strengthen its relationship with customers, enhancing communicative and customer service processes for benefits such as customer experience improvement and increased loyalty. Some companies remodeled their business and undertook a complete change that forced them to adopt a new

identity and a new position within the market; the same has happened with new business model creations. Digital transformation generates a higher quality exchange of information and a greater scope of data collection, allowing for better decisions and better reaction speed when taking big risks. Experience and data-based decisions are increasingly important and appreciated. Not only are companies able to provide traceable data on everything that is occurring, but they also analyze this information as quickly as possible so as to improve future planning and actions for the business. Lastly, the value of the changes sought after via digital transformation can be seen in the long-term outcomes that businesses seek. While certain outcomes of digital transformation may be seen in the short-term, namely those relating to production optimization, process acceleration, and increased efficiency, the main goal is to improve a company's sustained results. This marks three types of opportunities that businesses can take advantage of following a successful digital transformation [15, 16].

1. Improved relationship between the company and its customers.
2. Create new business models.
3. Improve decision-making processes.

CONCLUSION

Digital transformation offers SMEs a pathway to enhanced competitiveness, innovation, and growth, aligning with the evolving digital economy. However, SMEs face significant challenges, including limited resources, technological barriers, and organizational resistance. Addressing these challenges requires targeted support from policymakers, industry leaders, and academic researchers. By fostering a conducive environment for DT, SMEs can leverage digital technologies to overcome traditional limitations, improve operational efficiency, and achieve sustainable growth. Future research should focus on developing tailored strategies and frameworks to facilitate DT in SMEs, ensuring their successful integration into the global digital economy.

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