ENABLERS AND BARRIERS OF MANAGING AND SUSTAINING DIGITAL TRANSFORMATION

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ABSTRACT

Digital transformation strengthens micro, small and medium-sized enterprises (MSMEs) to rethink the way they make decisions and apply technology in meaningful and sustainable ways. The aim of this study is to investigate the main barriers to MSMEs' sustainable digital transformation, given their global importance and function as the backbone of any economy through various statistical data. We apply the concept of sustainable digital transformation (SDT), which refers to the process of digitalizing the economy in a long-lasting, green, and organic way by building on its key strength: innovative companies and their business ecosystems. The study is based on a representative survey of 425 Latvian MSMEs, which was conducted in the spring of 2021. We combine a survey of MSMEs with a qualitative comparative analysis. These study identified seven barriers to sustainable digital transformation for MSMEs, which can be classified into three levels of importance. We found that the most important barriers to MSMEs are IT security issues and the shortage of specialists in the external labor market. Furthermore, we discovered that some barriers differ depending on company attributes, such as the number of employees, revenue, and the ability to implement digital transformation independently. However, the barriers were evaluated similarly by company owners and managers. These findings can help MSMEs' managers and owners, policymakers, and practitioners understand which barriers are impeding MSMEs' sustainable digital transformation.

Keywords: Sustainable Digital Transformation, MSME, Barriers of Digital Transformation.

INTRODUCTION:

Companies' digital journey began with technology, but due to the pandemic, many of the barriers to digital adoption were not barriers anymore. For instance, businesses have already made significant investments that are assisting them in safeguarding their digital security and have built a technology infrastructure that enables employees to work from home. Furthermore, given the increasing pressure on global resources and the pressing need to reduce emissions, digital transformation can assist businesses in transforming in a sustainable manner.

Although the possibility that digital transformation opens up new horizons for businesses combining digital and environmental goals, there are numerous obstacles to overcome. In this study, we look at how companies perceive the importance of barriers to sustainable digital transformation (SDT). The SDT concept refers to the process of digitalizing the economy in a long-lasting, green, and organic way by building on its key strength: innovative companies and their business ecosystems. Also, academics focus on both digitalization and sustainability, due to which our learning of the barriers to MSMEs' SDT remains very less. This is necessary to ensure their sustainable journey; MSMEs must overcome challenges and select appropriate digitalization initiatives using the strategic directions provided by digital transformation.

The majority of current empirical research on digital transformation is based on case studies, or historical data on tech, with generalized and limited inputs. Thus, increasing learning of the barriers to MSMEs' SDT enables longitudinal research, which is critical for stakeholders such as MSMEs, academia, and policymakers. SDT barriers have not been properly searched for. This study addresses these gaps and barriers by raising questions. Earlier research has not laid emphasis on attributes such as company size, ability to manage digital changes independently, opinion of owners and managers, or revenue level. Because of this, earlier analysis in this area does not accurately capture the barriers one must overcome in order to embark on a sustainable digital journey. The main objective of this research is to investigate the main barriers to MSMEs' sustainable digital transformation, given their worldwide significance and function as the backbone of any economy. To achieve the study's aim, we combined a survey of MSMEs with a

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qualitative comparative analysis. Sections discuss the theoretical background and research questions. The data and methodology are covered presents the results of data analysis for the main barriers to sustainable digital transformation, as well as insights into the research questions.

Barriers to Transformation

Organization managers face a variety of resource challenges during digital transformation since transformation, like any other alternation or development, requires both tangible and intangible resources. To justify the barriers clearly, we employ a resource-based theory. Although it was proposed that a firm in 1984 was in no agreement on the definition of even the basic concepts and framework workings, which can be explained by being in an emerging and developmental state. According to the writers, the theory can explain the evolving process, so the changing nature of the theory corresponds well with the changing nature of the market.

The role of any theory in helps evelve and maintains a competitive advantage through resource management during an organization's digitalization is gaining popularity in academia and industry. It shares a set of basic presumptions, which include concepts of resource acquisition and accumulation and theories of sustainable competitive advantage such as dynamic capabilities and the relational view. Tangible resources include physical assets such as financial resources and human resources, whereas intangible resources include an organization's reputation, culture, knowledge or know-how, accumulated experience, and relationships with customers, suppliers, or other key stakeholders.

The implementation of digital transformation is a complex process with numerous resource challenges and barriers to overcome. We develop a concept that identifies barriers to sustainable digital transformation using the resource-based theory perspective. Consequently, recognizing barriers and comprehending their causes is crucial to being able to overcome them.

A review of the literature identifies a number of barriers, including a lack of suitable funding options, IT security concerns, a lack of employees with adequate digital skills, a shortage of IT specialists in the outside job market, internal resistance to change, a lack of managers with the necessary knowledge to implement change, uncertainty about future digital standards, etc. All of the identified barriers are resource-related; for example, a lack of suitable funding options is a financial resource. A company's resources for starting a business or restructuring, including digital transformation, can be divided into five broad categories: financial, human, educational, emotional, and physical resources.

According to RBT, effective resource management provides a competitive advantage to the company. Digital transformation refers to the process of using digital technologies to fundamentally change the way organizations operate and deliver value to their customers. While digital transformation can bring significant benefits such as increased efficiency, improved customer experiences, and new revenue streams, it is not always easy to achieve. Here are some common barriers to digital transformation:

1. Resistance to change: One of the most significant barriers to digital transformation is resistance to change. People are often hesitant to adopt new technologies or new ways of working, especially if they have been used to doing things a certain way for a long time.
2. Lack of skills and expertise: Another barrier to digital transformation is a lack of skills and expertise. To successfully implement digital technologies, organizations need employees with the right skills and knowledge. However, many organizations struggle to find and retain skilled workers in areas such as data science, artificial intelligence, and cyber security.
3. Legacy systems and processes: Legacy systems and processes can also be a significant barrier to digital transformation. Many organizations have invested heavily in their existing systems and processes, and changing them can be difficult and expensive.
4. Data management and privacy concerns: As organizations collect more data, data management and privacy concerns become more significant. Organizations need to ensure that they are collecting and managing data in a responsible way, and that they are protecting the privacy of their customers and employees.
5. Cyber security risks: Digital transformation can also increase cyber security risks, as more data and systems become interconnected. Organizations need to ensure that they have robust cyber security measures in place to protect against cyber threats.
6. Lack of leadership and vision: Digital transformation requires strong leadership and a clear vision for the future. Without this, organizations may struggle to make the necessary changes and investments to achieve digital transformation.
7. Cost and budget constraints: Finally, cost and budget constraints can be a significant barrier to digital transformation. Implementing new technologies and processes can be expensive, and organizations may need to make difficult trade-offs between investing in digital transformation and other priorities.

Discussion of the importance of addressing these barriers. Recommendations for organizations looking to overcome these barriers. This outline provides a framework for a research paper on barriers to digital transformation. Researchers can use this outline to structure their paper and provide a comprehensive analysis of the various barriers organizations face when implementing digital transformation initiatives. By addressing these barriers, organizations can increase their chances of success and fully realize the benefits of digital transformation.

Data Collection and Methodology

This study utilizes a three-stage approach.

- Stage 1 is devoted to a literature review.
- Stage 2 is based on a survey to collect factual data about the barriers to SDT from MSMEs' owners and managers. In Stage 3, we performed a qualitative comparative analysis using the Kruskall–Wallis H test to identify differences between different groups of SMEs. MSMEs were first classified according to their size. We classified MSMEs into micro-, small-, and medium-sized enterprises based on the number of employees. In addition, we classified MSMEs as having high or low revenue. Second, MSMEs were classified according to their ability to manage the digital transformation on their own.
- Stage 3 we investigated the significance of barriers based on respondents' status: owners or managers. This method also allowed us to test our research questions and determine how similar or dissimilar objects really are.

RESULTS

The survey analysis reveals that the most pressing issue confronting MSMEs is a lack of appropriate financing options, which has the highest percentage for answer 7 (extremely important). The estimate is so high because of micro businesses, whereas the mode for other sized businesses is only 5 (moderately important). The following barrier, with the highest percentage for answer 7 (extremely important), is a shortage of specialists in the external labor market. Again, this is largely due to small businesses. However, 33% of MSMEs estimated a shortage of specialists in the external labor market at a rate of 6 (very important). Such a pressing estimate was due to medium and small businesses, whereas micro businesses did not see it as pressing.

Analysis of the modes reveals that the SDT barriers vary depending on the size of MSMEs. For example, the most pressing issues for small businesses are employee-related barriers, a shortage

of specialists in the external labour market, and employees with insufficient digital skills. In the case of medium-sized businesses, in addition to employee-related barriers, there is a lack of certainty about future digital standards and IT security issues.

Other studies show that the importance of barriers varies depending on the size of the company or the economic activity discovered that, although a lack of skills is typically a smaller issue within larger organizations that can invest in training programmes, it becomes especially visible in smaller companies or subcontractors operating on a spot contract basis, where investment in digital skills development is not applicable due to frequent subcontractor changes. The main difference between the impediments identified by their study and those identified by the general digital transformation literature is that people, and their resistance to change, are not the top barrier for logistics service providers.

CONCLUSION:

The practical implications of this research could be directed mainly at policymakers and managers of MSMEs. Extensive scientific research proves that digital transformation does not start by itself; in different sectors of the national economy, there are various triggers that launch this process. Despite the positive trend towards digitalization in general, human capital and digital integration in many MSMEs remain relatively low [50]. Significant number of MSMEs still is far away from the idea of digital transformation; hence, triggering is essential. Our study identifies the main barriers to sustainable digital transformation, so its practical value for policymakers lies in the potential application of the study's findings to initiate the process of sustainable digital transformation among MSMEs by addressing their IT security concerns and preparing IT future specialists. Moreover, we discovered that barriers differ depending on the attributes of MSMEs. These findings imply that policymakers developing support strategies should take these differences into account in order to improve strategy efficiency. To overcome the barriers to SDT, each business must be treated as a distinct object of estimation. The study's findings could help MSMEs managers understand the importance of investing in specific areas to overcome identified barriers. For example, a labor market shortage of IT specialists can be addressed through collaboration with educational institutions. Companies can provide grants to talented IT students in exchange for future employment. Furthermore, industry can influence university study programs by initiating needed specialties and skills for future employees. Although lack of funding is a common pressing issue for the majority of micro businesses,

common issues can lead to more effective problem solving than individual issues. Different MSMEs associations can launch support programs at the national and international levels. Digital and green transformations are currently the most widely supported processes in many countries. Efficiency gains brought about by digital transformation may speed up companies' progress toward sustainability objectives. However, the manner in which these digital solutions are built is equally important in order to avoid the introduction of new problems. In this study, we attempt to identify the major barriers that MSMEs face during their sustainable digital transformation.

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