



Review

Impact of Digital Transformation on Financial Management of Small and Medium Enterprises

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Abstract: This paper investigates the impact of digital transformation on managing finances in small and medium-sized enterprises (SMEs). The aim of the research is to examine how innovative technologies enabled by digital transformation can improve the efficiency and transparency of financial management. By analyzing literature sources key tools and technologies that SMEs can utilize have been identified. Particular focus is placed on artificial intelligence, machine learning, big data analytics, and automated reporting, which enable more accurate decision-making, cost reduction, and optimization of financial flows. The findings show that digital transformation can significantly improve the financial performance of companies, increase profitability, and reduce operational costs. The conclusion points out the importance of investing in digital technologies and continuous employee education to fully realize the benefits of digital transformation for SMEs. Further research is recommended to include larger samples and different industrial sectors to further validate these findings and explore the long-term effects of digital transformation on financial management.

Keywords: *Digital transformation; financial management; artificial intelligence; machine learning; big data analytics.*

1. Introduction

Managing business finances represents a key component of successful operations in today's dynamic and rapidly changing business environment. Financial management involves planning, organizing, controlling, and supervising financial resources to achieve financial stability and sustainable company growth. Digital transformation, which encompasses the integration of digital technologies into all aspects of business, significantly changes the way companies manage their finances. According to Siebel, digital transformation introduces new technologies such as artificial intelligence, machine learning, and big data analytics, which enable faster and more accurate financial decision-making [1]. These technologies offer the potential for more efficient management of financial flows, reduction of operational costs, and increased transparency of financial information. According to a study published in the Harvard Business Review, Lamarre et al. (2023) argue that digital transformation allows companies to optimize their financial processes and improve their overall financial performance through the application of reporting automation and advanced analytics [2]. This is significant because small and medium-sized enterprises (SMEs) constitute more than 99% of all registered businesses with 67% of the workforce and are an extremely important part of the Republic of Serbia's economy [3]. Their ability to adapt to digital transformation is crucial for their survival and growth, as well as for the growth of the entire economy. Serbian companies in the ICT sector adequately manage intellectual capital which has a significant impact on business

performance proving that the ICT sector can be competitive on the regional, European and global markets [4,5]. Digitalization is essential to promote the transformation of agriculture to improve the well-being of farmers in Serbia's economy as it provides farmers with relevant, timely information and services, thereby facilitating farming, and leading to increased profitability and sustainable businesses [6]. According to a report by McKinsey & Company, SMEs that have successfully implemented digital technologies have seen profitability increases and operational cost reductions of up to 30% [7]. Deloitte Insights (2020) confirms these findings, stating that digital transformation brings significant time and resource savings in financial processes [8].

The aim of this research is to analyze the impact of digital transformation on managing business finances in small and medium-sized enterprises in Serbia. Secondary objectives include identifying the most effective digital tools and strategies that SMEs can use to improve their financial processes. Through the analysis of secondary sources, this paper aims to provide insights into best practices and recommendations for successful digital transformation in the SME sector. The research is expected to demonstrate a significant increase in efficiency and a reduction in costs through automation and big data analytics. The implementation of artificial intelligence and machine learning should result in better predictive analytics and a reduction in unforeseen costs. Digital tools will contribute to increased transparency and compliance with regulatory requirements, reduced compliance costs, and increased investor confidence. The research is expected to identify key challenges in the implementation of digital transformation and offer practical strategies for addressing them.

Business financial management is the process of planning, organizing, controlling, and supervising financial resources to achieve the organization's goals. This process includes a series of activities that enable companies to optimally use their resources, reduce costs, and increase profitability. Traditional methods of financial management have been the cornerstone of business administration throughout much of the 20th century. These methods focus on the fundamental aspects of acquiring and managing finances with the aim of maintaining the stability and sustainability of the enterprise. Key components of traditional financial management include budgeting, financial statement analysis, cost control, capital budgeting, and working capital management.

a) Budgeting – the process of planning and controlling income and expenses, as well as the tactical implementation of a business plan to ensure that the enterprise operates within its financial means. This method allows managers to predict future financial needs and allocate resources optimally.

b) Financial Statement Analysis – involves reviewing fundamental financial documents such as the balance sheet, income statement, and cash flow statement. This process enables managers to assess the financial health of the enterprise and make informed decisions about future business moves.

c) Cost Control – a method used to manage and reduce operational expenses to increase the profitability of the company. This process involves identifying unnecessary costs and eliminating them.

d) Capital Budgeting – is the process of evaluating and selecting long-term investments that will bring the greatest value to the enterprise. This method includes analyzing various investment projects and assessing their profitability.

e) Working Capital Management – involves optimizing current assets and liabilities to ensure liquidity and financial stability of the enterprise. This method includes managing inventory, receivables, and payables to suppliers.

Digital transformation represents the integration of digital technologies into all aspects of business, which includes significant changes in financial management. This process brings numerous advantages but also challenges for financial processes within organizations. Digital transformation affects various aspects of financial management in the following ways:

1. Reduction of Manual Labor and Errors – Automated systems reduce the need for manual data entry, thereby decreasing the possibility of human errors and speeding up processing. Automation reduces invoice processing costs and increases processing capacity through greater efficiency within the same unit of time.

2. Increased Productivity – Using automated systems frees financial teams from routine tasks, allowing them to focus on analysis and strategic planning.

3. Faster Decision-Making – Automation allows for quicker generation of reports and insights, helping management make informed decisions in real time.

It is also important to note the challenges of automation. The biggest challenge is the implementation of automation, which requires integrating a new solution into the existing IT system infrastructure and internal user structure. Careful and participatory planning is needed for the introduction of changes to ensure successful implementation and minimize resistance or unforeseen costs. Another challenge is training employees to efficiently use new systems. Employees need to acquire new skills to effectively manage and maintain automated systems. This may include training programs for new technologies, as well as reskilling existing employees to adapt to changes in their work roles. The desired outcome is a high-quality report and a qualitative shift in the interpretation of generated data. As shown in Figure 1, key actions should include adequate training and support for using new tools, planning and conducting continuous professional development due to constantly changing regulations and technology, maintaining a high level of data security, involving employees in the change process, and providing support during the transition, maintaining a high level of motivation and retaining qualified employees in a dynamic environment, defining and monitoring key performance indicators, and regularly providing feedback to employees [9].



Figure 1. Challenges of implementing automation in business financial management [9].

Big data analytics is enabled by digital transformation and serves to make informed financial decisions. By using advanced analytical tools, companies can collect, process, and analyze vast amounts of data to identify patterns and trends that affect their business. These insights can help management make better decisions regarding investments, risk management, and resource optimization. Artificial intelligence (AI) and machine learning (ML) play a crucial role in the digital transformation of financial processes. These technologies enable predictive analytics, which helps companies and their financial management structures to forecast and report on projections of future financial flows and identify potential risks before they materialize. For example, AI algorithms can analyze historical data on revenues and expenses to predict future trends and recommend optimal

strategies for financial management. Increased transparency and compliance in financial processes is another outcome that digital transformation contributes to.

2. Materials and Methods

The main objective of the research is to provide a deeper understanding of how digital transformation affects financial management. The specific research objectives are to examine the digital transformation on the efficiency of financial processes, specifically how the automation of financial processes contributes to the reduction of manual labor, the decrease in errors, and the acceleration of financial transaction processing. The research design provides insight into the impact of digital transformation on the financial management of small and medium-sized enterprises. Secondary data sources are used in this study. Secondary sources also include findings from various professional companies and industries, thereby analyzing specific trends that can be applied to business financial management.

3. Results and Discussion

According to the research results by McKinsey & Company conducted throughout 2022 and 2023, 89% of large companies (more than 500 employees) globally are in the process of digital and AI transformation but have captured only 31% of the expected revenue growth and 25% of the anticipated savings. Small and medium-sized enterprises (SMEs - fewer than 500 employees) face resource limitations for implementing digital technologies, but the research shows that digital transformation can significantly enhance their operational efficiency and competitiveness [10]. According to an OECD report, the smaller the firm, the less likely it is to adopt new digital practices, and the more likely it is to limit adoption to basic services [11]. Overall, the digitization of SMEs is strongly linked to how value is created within the firm and the sector in which it operates. SMEs tend to first digitize general administration or marketing functions. What characterizes the largest number of ICT companies, especially those whose main activity is software development, are high costs of human resources due to the specific activity that requires a highly educated, professional, and trained personnel profile [12]. SMEs play a vital role in the global economy, contributing up to 70% of employment and GDP. In knowledge-intensive sectors, firms use all types of technologies more intensively, and some aspects of digital transformation are almost fully completed. For example, the average proportion of employees in the OECD with access to connected devices is about 90%, compared to 50% in all sectors. The COVID-19 crisis increased the importance of digitalization for SMEs and served as an accelerator [11].

In agriculture, policies aimed at fostering digitalization in agriculture rely mainly on supporting the acquisition of mechanical and digital equipment but they also should concentrate on general (human capital) and specific development of farmer's skills in digitalization [13]. Climate change and food scarcity may accelerate digitalization and the effectiveness depends primarily on understanding the mechanisms that drive farmers to adopt and integrate digital technologies [14].

However, 67% of SMEs and mid-sized enterprises are struggling to survive. Over 85% of organizations recognize increased adoption of new technologies and expanded digital access as key drivers of transformation. Digital infrastructure has been identified as a significant driver of long-term financial growth and adaptive capacity for SMEs [15]. SMEs that successfully implement digital transformations report significant improvements in productivity and cost reduction, as confirmed by findings from the U.S. Small Business Administration [16]. But what does this mean for companies and business finance departments, and is it possible to find the same evidence for the benefits of digital transformation for business finance? According to the Boston Consulting Group [17], the findings were unequivocal. The best results are seen in entities that establish a clear digital strategy from the outset to guide their efforts. Their investments typically result in higher revenues and earnings, as well as lower overall costs compared to competitors. This finding was somewhat expected. What was unexpected, however, was the poor performance of financial institutions that

pursue digital initiatives without a guiding strategy – even compared to those that do not implement or are just starting digital initiatives. These companies must urgently take steps to correct their course. According to research by Broadridge [18], conducted on 500 executives at the CEO, COO, and CFO levels across 18 countries, more than half of the respondents consider digital transformation the most important initiative for their company and spend about 27% of their entire IT budget on digital transformation. For 71% of them, AI has significantly changed the way they operate.

The research findings confirm the findings of previous studies that have explored the impact of digital transformation on financial processes in enterprises, highlighting significant improvements. Previous research has already shown that digital transformation aims to significantly enhance efficiency and reduce costs in the financial sector, regardless of the amount of data to be processed. Artificial intelligence and machine learning, when powered by high-quality data, can significantly impact the accuracy of financial predictions. In terms of greater transparency and compliance, the availability of adequate indicators and regular monitoring can lead to significant improvements in compliance with regulatory requirements, reduction of compliance costs, increased investor confidence, and acceleration of the reinvestment cycle. Digital transformation is a dynamic process, and technologies evolve rapidly. The results pertain to current technologies and practices, as well as knowledge from the past few years. However, future research should monitor new technologies and their effects, which can emerge within a year.

4. Conclusions

Companies that neglect digital transformation, both in finance and generally, and fail to see the bigger picture of their business operations, fall behind and find it increasingly difficult to keep pace with market leaders, posing a significant risk to sustainable operations. Digital tools can indeed help small and medium-sized enterprises (SMEs) ensure sustainability by fostering steady growth and competitive market performance. The adoption of digital transformation varies significantly between sectors, regions, and groups of business owners. The priorities for small businesses in promoting the use of digital tools include infrastructure needs such as broadband speed and access, digital literacy of owners and employees, lack of training for digital skills, and better financing options for SMEs.

While the results of this research are generally positive, it is important to note the challenges companies face during digital transformation. High initial costs, the need for employee training, and the integration of new systems with existing IT infrastructure are some of the key challenges. Companies must carefully plan and manage these processes to reap the maximum benefits of digital transformation. Digital transformation is a key factor for enhancing financial management in modern business environments. Those companies that successfully implement digital technologies can expect significant improvements in efficiency, cost reduction, and increased competitiveness. However, the success of digital transformation depends on careful planning, adequate employee training, and effective integration of new technologies into existing business processes.

Conflicts of Interest: The authors declare no conflict of interest.

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