

Managing Businesses in the Era of Technological Innovation: A Case Study from Tirana, Albania

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Technological innovation is transforming how businesses are managed, opening new avenues for improving efficiency, reducing operational costs, and enhancing competitiveness. This study examines the influence of modern technologies on business management in Tirana, Albania, with a focus on how local enterprises are integrating digital tools into their organizational practices. Using a mixed-methods approach that includes a thorough literature review and a case study methodology, the research is based on data gathered from 50 questionnaires completed by business representatives in Tirana. The findings highlight both the opportunities and challenges associated with technological innovation. Key benefits include more streamlined operations, improved internal and external communication, and increased market reach. However, businesses also face notable obstacles such as limited technical skills, financial constraints, and difficulties adapting traditional management models to modern technological demands. Drawing on the framework proposed by Parviainen et al. (2017), the study places these findings within the socio-economic context of Tirana. It underscores the importance of investing in digital infrastructure, strengthening human capital, and creating supportive policies to facilitate technological integration. By linking theoretical insights with real-world observations, this research offers practical recommendations for businesses and policymakers aiming to foster innovation-driven growth in Albania's evolving business environment.

Keywords: Digitalization in SMEs, business management transformation, technological adoption challenges, SMEs in Tirana, digital tools integration

Introduction

In recent years, digitalization has become a transformative force across industries, fundamentally changing how businesses operate and compete. By adopting digital tools and technologies (Texas Instruments, 1997), companies can streamline operations, enhance decision-making, and create new opportunities for growth. Small and medium-sized enterprises (SMEs), which play a critical role in global economies, are particularly well-positioned to benefit from digitalization. Digital technologies offer SMEs the ability to improve their management efficiency, strengthen competitiveness, and expand into new markets. As highlighted earlier by Parviainen et al. (2017), digitalization is already influencing business environments and the way corporations

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work. Neglecting digitalization can create the risk of losing the competitive edge in highly competitive markets.

Digitalization can affect the entire environment and internal functioning of a company. It can also bring new business opportunities, change the roles of operators in a value chain, and even lead to the end of existing businesses. For example, digitalization can remove traditional intermediaries in the supply chain and create new intermediaries. This may be due to, for example, direct access to consumers and the increased use of mobile devices. Thus, the impact of digitalization and its goals for an organization can be identified from three different perspectives:

Internal efficiency: i.e., improved ways of working with digital tools and re-planning internal processes

External opportunities: i.e., new business opportunities in the existing business domain (new services, new customers, etc.)

Disruptive change: digitalization causes radical changes to business roles.

These three perspectives of the impact of digitalization can be illustrated as shown in Fig. 1.

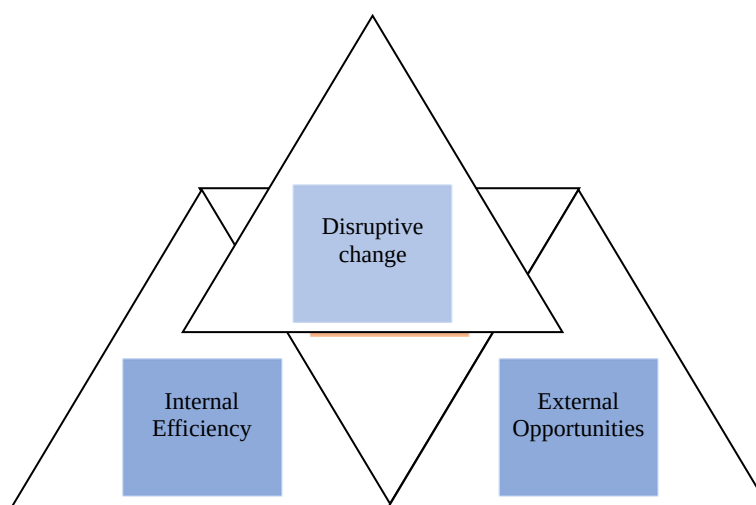


Figure 1. The impact of digitalization.

Source: Parviainen et al. (2017, p.66).

In Albania, SMEs represent the backbone of the economy, accounting for approximately 99% of all registered businesses and contributing significantly to employment and GDP (INSTAT, 2023). These enterprises are vital for economic development, but they face unique challenges in adopting digital solutions. Limited access to financial resources, insufficient digital skills, and infrastructural constraints often prevent SMEs from fully embracing digital transformation (World Bank, 2022; European Commission, 2022). Despite these obstacles, digitalization presents a critical opportunity for Albanian SMEs to enhance productivity, adapt to changing market dynamics, and increase resilience in a competitive global landscape.

This study explores the impact of digitalization on business management practices among SMEs in Tirana, Albania. Digital tools such as customer relationship management (CRM) systems, cloud computing, e-commerce platforms, and data analytics are increasingly being integrated into business strategies to improve operations, reduce costs, and respond to market demands (McKinsey, 2020; Semilof, 1996). The research adopts a mixed-methods approach, combining a comprehensive review of existing literature with primary data collection from 50 SME representatives in Tirana. This approach provides insights into how digital technologies are being utilized in day-to-day management and the extent to which they are transforming business operations.

Previous studies have highlighted the potential of digitalization to boost efficiency and foster innovation among SMEs (Bharadwaj et al., 2013; Kane et al., 2015). However, the specific context of Albania, characterized by its emerging economy and unique challenges, remains underexplored. This study aims to fill this gap by examining how digital tools are applied within Albanian SMEs and identifying barriers to their widespread adoption. By doing so, the paper seeks to provide actionable recommendations for policymakers, industry leaders, and business owners to support the digital transformation of SMEs in Tirana and beyond.

The findings of this research will contribute to the growing body of knowledge on digitalization in SMEs, offering valuable insights into the Albanian context. Furthermore, this study underscores the importance of tailored strategies to address the specific needs and constraints faced by SMEs in transitioning to digital business models. Such strategies are essential for fostering sustainable economic growth and enhancing the competitiveness of the SME sector in Albania.

Material and Method

The research adopted a mixed-methods approach, combining a comprehensive literature review with primary data collection to provide a well-rounded analysis of the impact of digitalization on SMEs in Tirana. The literature review offered insights into existing theories, frameworks, and previous studies related to digital transformation in small and medium-sized enterprises. This helped establish a theoretical foundation and identify key trends and challenges faced by SMEs globally and within the Albanian context.

For the primary data collection, a survey was designed and distributed to 50 SME representatives located in Tirana. The questionnaire aimed to capture detailed information on the extent to which digital technologies are integrated into the day-to-day operations and strategic management practices of these businesses. Respondents were asked to provide insights on various digital tools they currently utilize, such as customer relationship management (CRM) systems, enterprise resource planning (ERP) software, e-commerce platforms, and other technological innovations (Adachi et al., 2012; BBC News, 2013; Diamant and Luptakin, 1991; Williams, 1993).

In addition to exploring the integration of digital technologies, the survey also focused on understanding the challenges SMEs face in adopting these tools. Key areas of inquiry included barriers related to financial constraints, limited digital skills among staff, and insufficient infrastructure. The aim was to identify the specific obstacles hindering the widespread implementation of digital tools in Albanian SMEs and to explore potential solutions that could facilitate a smoother digital transformation.

By combining both secondary and primary data sources (Holland, 2002), this mixed-methods approach allowed for a more in-depth understanding of the digitalization process in SMEs, providing valuable insights into both the opportunities and challenges present in the Albanian business environment.

Data Analysis

Figure 2 illustrates a steady increase in technology adoption by businesses from 2020 to 2024 across key metrics. Basic infrastructure, such as computers with internet access and fixed internet connections, has remained nearly universal, while improvements in internet speeds, social media usage, and employee access to technology highlight businesses' expanding digital capabilities. Notable growth is observed in ICT specialists employed (from 26.0% to 29.7%) and download speeds above 30 Mbit/s (from 75.0% to 88.0%), demonstrating investments in skilled personnel and faster connectivity to enhance productivity.

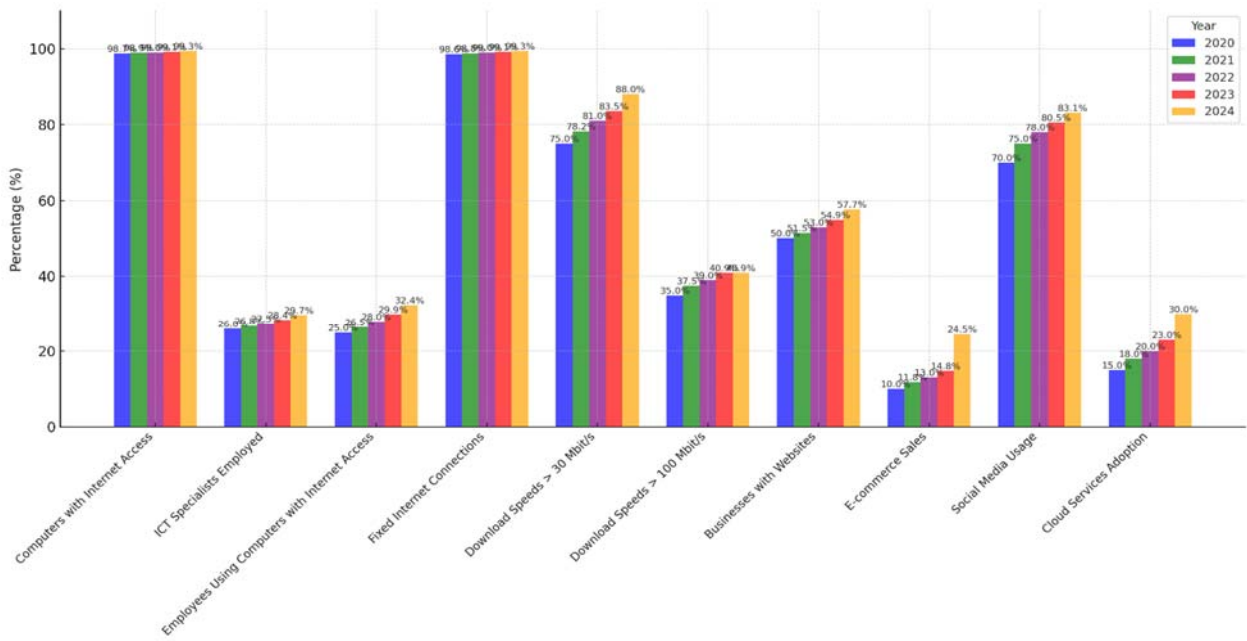


Figure 2. Technology adoption in businesses (2020-2024).
Source: INSTAT (2023).

Table 1
Digital Tool Integration and Challenges Faced by SMEs in Tirana

Group	Number of Businesses	Digital Tools Used	Main Problems	Technology Adoption Scope	Staff Training	Plans for Expanding Digitalization Usage
1	9	CRM, ERP, Accounting Software	Budget limitations, digital skills	Partial use, in some sectors	Yes, light training	Plans to implement ERP and CRM systems
2	7	CRM, E-commerce, Cloud Computing	Lack of infrastructure, digital skills	Moderate use in customer service	Yes, online training	Expansion of CRM and support from cloud computing
3	9	ERP, CRM, Accounting Software	Lack of funds, mistrust of technology	Use in management and specific departments	Yes, staff training	Implementation of CRM and improvement of internal processes
4	7	CRM, E-commerce	Lack of knowledge about technology, complex management	Moderate use, in sales sectors	Yes, some online training	Increase use of digital tools
5	10	E-commerce, Cloud Computing, ERP	Financial limitations, technological distribution	Full integration in the sales sector	Yes, specialized training	Increase use of ERP and adoption of AI
6	8	E-commerce, CRM, Cloud Computing	Infrastructure changes, staff assistance	Partial use in marketing and sales	Yes, training for all	Plan to integrate ERP and new tools in marketing

Source: Authors.

Results

Figure 1 illustrates a steady increase in technology adoption by businesses from 2020 to 2024 across key metrics. Basic infrastructure, such as computers with internet access and fixed internet connections, has remained

nearly universal, while improvements in internet speeds, social media usage, and employee access to technology highlight businesses' expanding digital capabilities. Notable growth is observed in ICT specialists employed (from 26.0% to 29.7%) and download speeds above 30 Mbit/s (from 75.0% to 88.0%), demonstrating investments in skilled personnel and faster connectivity to enhance productivity.

The most significant advancements are in e-commerce sales and cloud services adoption, with e-commerce doubling from 10.0% in 2020 to 24.5% in 2024, and cloud services adoption growing from 15.0% to 30.0%. These trends underline a shift toward digital transformation and online business operations, driven by evolving consumer behavior and the need for scalable technology solutions (Smith, 2023). While high-speed internet (100 Mbit/s) adoption has plateaued, the overall trends showcase a commitment to leveraging technology for growth and efficiency.

Enterprises with 10 or more employees that have used computers with internet access for work purposes in 2024 represent 99.3% of businesses, compared to 99.1% in 2023. In 2024, the percentage of businesses that have information and communication technology (ICT) specialists is 29.7%, up from 28.4% in 2023.

The analysis of the digital tool integration among the surveyed businesses in Tirana reveals significant insights into their operations and challenges. Approximately 18% of the businesses utilize customer relationship management (CRM), enterprise resource planning (ERP), and accounting software, indicating a foundational level of digital integration. However, these businesses face challenges such as budget limitations and a lack of digital skills, which restrict their ability to fully leverage these tools.

In contrast, around 20% of the businesses have adopted more advanced digital solutions, including e-commerce platforms and cloud computing, achieving full integration in their sales operations. This suggests that while some enterprises are effectively utilizing digital technologies, others are still struggling with fundamental barriers that impede their progress.

Moreover, the findings indicate that 50% of the businesses report facing significant challenges related to financial constraints and insufficient digital skills among their staff. These issues are particularly pronounced among those with partial or moderate use of digital tools, where the integration is limited to specific areas of operation. Despite these challenges, all businesses recognize the importance of staff training, with plans in place to enhance digital competencies across the board. Furthermore, a notable 70% of the businesses express intentions to expand their use of digital tools in the future, highlighting a proactive approach to digital transformation.

Conclusion

Digitalization offers significant opportunities for SMEs in Tirana to improve efficiency, competitiveness, and access new markets. Many SMEs face major obstacles to adopting digital tools, especially financial limitations and a lack of digital skills among employees (Kovac, and Peterson).

Financial constraints remain one of the biggest barriers, as many SMEs cannot afford to invest in advanced digital technologies. Limited digital skills hinder the effective use of digital tools, underlining the need for targeted training and capacity-building programs.

Despite challenges, most SMEs recognize the importance of digitalization for future growth. Around 70% of surveyed businesses plan to increase their use of digital tools in the coming years.

Government support is crucial to facilitate digital adoption. Policymakers should focus on improving digital infrastructure and expanding access to digital education. Financial incentives, such as subsidies, could ease the financial burden of digital adoption for SMEs.

Public-private partnerships can help create supportive ecosystems for digital growth, providing SMEs with resources and knowledge. In conclusion, while the road to full digital transformation is not without its challenges, SMEs in Tirana are motivated to embrace digital tools with the right support and policies.

SMEs need to be cautious of cybersecurity risks that come with digitalization. Many businesses lack sufficient protection and awareness about the risks of cyberattacks, which could jeopardize their digital investments.

Collaborations between SMEs and academic institutions could foster innovation, helping businesses develop new products, services, or processes that take advantage of emerging digital technologies.

Enhancing financial literacy alongside digital skills would be beneficial for SMEs to maximize the potential of digital tools for business management, accounting, and finance.

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