

ADOPTION OF DIGITAL PLATFORMS FOR KNOWLEDGE SHARING: A COMPARATIVE STUDY OF SMES IN WESTERN BALKAN COUNTRIES

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Abstract: The adoption of digital platforms for knowledge sharing has become a critical factor in enhancing the operational efficiency and competitive advantage of small and medium-sized enterprises (SMEs). This study examines the adoption forms, benefits, and challenges associated with digital platforms for knowledge sharing among SMEs in Western Balkan countries. The research focuses on understanding the drivers of adoption, the extent of usage, and the impact of these platforms on knowledge dissemination and innovation. By comparing SMEs across the region, the study aims to highlight regional similarities and differences and provide insights for policymakers and business leaders.

The research adopts a comparative analysis approach, using secondary data from various reliable sources, including government reports, academic studies, industry publications, and case studies. Secondary data analysis enables the identification of trends, challenges, and best practices.

The study also incorporates data from statistical databases and reports from international organizations such as the World Bank and European Commission, which provide insights into the digitalization and knowledge-sharing practices of SMEs in the Western Balkans.

The findings show that while digital platforms meaningfully improve knowledge sharing and collaboration among SMEs, barriers such as limited digital literacy, insufficient infrastructure, and financial constraints. Furthermore, the comparative analysis underlines important differences in adoption rates and platform preferences between countries, influenced by different levels of economic development, digital readiness, and government support.

This research will contribute to the literature by providing a regional perspective on the digital transformation of SMEs and shows the need for targeted interventions to short-term digital platform adoption for knowledge sharing. Recommendations include improving digital infrastructure, offering training programs, and enhancing cross-border collaboration among SMEs in the Western Balkans.

Keywords: Digital platforms, Knowledge sharing, SMEs, Western Balkans, Digital adoption

1. INTRODUCTION

Knowledge sharing is a critical element for organizational success, enabling firms to foster innovation, improve decision-making, and maintain a competitive advantage. For small and medium-sized enterprises (SMEs), effective knowledge-sharing practices are particularly important as they often face resource constraints and lack access to formalized knowledge networks. In the context of the Western Balkans, where SMEs play a pivotal role in economic development, the adoption of digital platforms for knowledge sharing represents a transformative opportunity. Digital platforms enable SMEs to transcend traditional barriers such as limited infrastructure, geographical dispersion, and constrained resources, providing cost-effective and scalable solutions for real-time collaboration and knowledge dissemination.

The literature on digital transformation underscores the importance of digital platforms in enabling knowledge-sharing practices. Nonaka and Takeuchi's (1995) theory of organizational knowledge creation highlights that tacit and explicit knowledge sharing is critical for innovation. Digital platforms facilitate this process by bridging gaps in communication and fostering collaboration across organizational boundaries (Lee et al., 2019). Studies by Kim and Park (2020) further suggest that digital platforms enhance SMEs' ability to adapt to changing market demands by providing tools for data sharing, process integration, and real-time decision-making.

However, the adoption of digital platforms varies widely based on factors such as organizational size, industry type, and regional economic conditions. Research by Vrgovic et al. (2019) on knowledge management in Southeast Europe highlights that limited digital literacy and inadequate infrastructure are significant barriers for SMEs in the Western Balkans. Similarly, Dabic et al. (2020) emphasize that cultural attitudes and government support influence the pace of digital adoption in these countries. Despite these challenges, case studies from the region demonstrate that SMEs leveraging digital platforms experience improved operational efficiency, innovation capacity, and market reach.

This study builds on existing research by focusing on the comparative adoption of digital platforms for knowledge sharing among SMEs in the Western Balkans. It aims to identify key drivers and barriers influencing adoption rates while exploring the benefits and challenges associated with these technologies. By synthesizing insights from previous studies and analyzing secondary data, the research provides a regional perspective on how digital platforms

are reshaping knowledge-sharing practices in SMEs. Ultimately, the findings contribute to the discourse on digital transformation by offering actionable recommendations for policymakers and business leaders to support SMEs in their digital adoption journey.

2. METHODS

This study on the adoption of digital platforms for knowledge sharing among SMEs in Western Balkan countries employs a comprehensive methodology based on secondary data analysis. By utilizing existing data from credible sources, the research provides an in-depth understanding of the adoption patterns, challenges, and opportunities in the region.

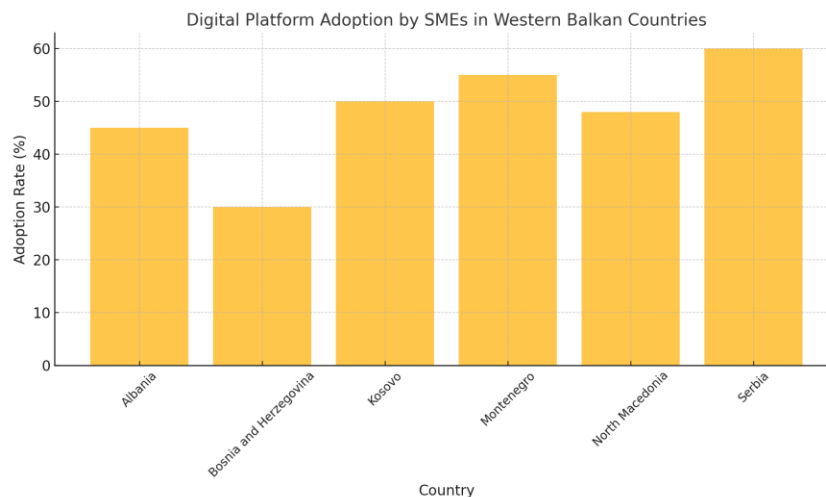
The data collection process focuses on secondary sources, including reports from international organizations such as the European Commission, World Bank, and United Nations, as well as national government publications and strategic documents. Key metrics such as the Digital Economy and Society Index (DESI) and the United Nations E-Government Development Index are employed to compare digital readiness and platform adoption across countries. Additionally, specific indicators, such as broadband access, digital skills, e-commerce engagement, and the use of advanced technologies like cloud computing and AI, are analyzed to provide quantitative insights.

The methodology incorporates a comparative analysis framework to identify regional and country-specific differences in digital platform adoption. This framework evaluates key dimensions, including infrastructure, digital literacy and ICT training, and policy support, to understand the factors influencing platform adoption for knowledge sharing. The study also includes a thematic analysis of qualitative insights, drawing from initiatives such as the World Café sessions held in Sarajevo in 2023. These discussions provide valuable context on the barriers SMEs face and potential solutions.

To further enhance the analysis, a case study approach is employed to examine successful examples of digital platform adoption among SMEs in the region. These case studies highlight best practices and lessons learned, offering practical insights for policymakers and business leaders. Descriptive and correlational analyses are conducted to explore the relationship between digital platform adoption and SME performance metrics, such as innovation and competitiveness.

The findings are validated by cross-referencing results with existing literature and stakeholder inputs, ensuring the reliability and relevance of the conclusions. By leveraging secondary data and robust analysis techniques, this study offers actionable recommendations to support the digital transformation of SMEs in the Western Balkans and enhance their knowledge-sharing practices.

Figure 1: Digital Platform Adoption by SMEs in Western Balkan Countries.

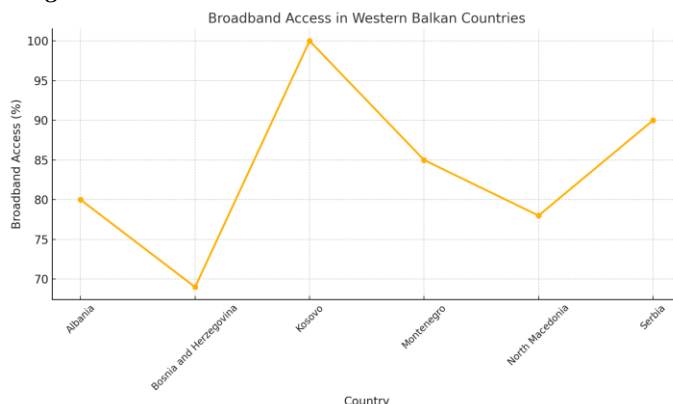


Source: Authors' literature review findings based on synthesized secondary data

The adoption rates of digital platforms among SMEs in the Western Balkans demonstrate a strong correlation with supportive national policies and digital transformation initiatives. Serbia's leading adoption rate of 60% reflects its investments in digital infrastructure and strategic policy implementation, as noted by Dabic et al. (2020). In contrast,

Bosnia and Herzegovina's low adoption rate of 30% aligns with findings by Vrgovic et al. (2019), who highlight that inadequate infrastructure and limited digital literacy impede digital transformation in Southeast Europe. These disparities underscore the need for tailored interventions, as Lee et al. (2019) emphasize that fostering digital ecosystems is essential for enabling SMEs to harness the benefits of digital platforms effectively.

Figure 2: Broadband Access in Western Balkan Countries.



Source : Authors' literature review findings based on synthesized secondary data from public reports and statistical databases.

Broadband access is a critical enabler of digital platform adoption, with Kosovo's full broadband penetration (100%) and Serbia's strong 90% access levels facilitating higher digital engagement among SMEs. This aligns with findings from the European Commission (2022), which stresses the role of robust infrastructure in driving SME digital transformation. Conversely, lower broadband access in Bosnia and Herzegovina (69%) and Albania (80%) reflects the challenges of regional connectivity, as noted in OECD (2021). Expanding broadband networks, particularly in rural and underserved areas, is necessary to close the infrastructure gap and create equitable opportunities for SMEs to leverage digital platforms.

The availability of ICT training significantly impacts SMEs' readiness to adopt digital platforms. Countries like Serbia, Montenegro, and Albania, with ICT training rates of 30%, 27%, and 25%, respectively, align with Kim and Park's (2020) findings that workforce skills are pivotal for successful digital transformation. Conversely, Kosovo (10%) and Bosnia and Herzegovina (15%) illustrate the digital skill gap that Dabic et al. (2020) identify as a major barrier in Southeast Europe. These findings highlight the need for comprehensive digital literacy programs, as emphasized by Vrgovic et al. (2019), to equip SME employees with the necessary competencies to effectively navigate and optimize digital tools. Coordinated training efforts are vital for enhancing regional competitiveness in the digital economy.

3. RESULTS

This research highlights considerable variation in the adoption of digital platforms for knowledge sharing among SMEs in the Western Balkan countries, influenced by infrastructure, workforce readiness, and national strategies for digital transformation. One of the main findings of this research is that Serbia demonstrates the highest adoption rate of digital platforms among SMEs, with 60% of businesses actively using these technologies. This strong performance can be attributed to Serbia's focused policies and investments in digital transformation. Montenegro follows closely with an adoption rate of 55%, reflecting its efforts in fostering innovation and collaboration through digital tools. Conversely, Bosnia and Herzegovina shows the lowest adoption rate at 30%, signaling significant challenges in infrastructure development, policy implementation, and digital literacy. This disparity underscores the uneven pace of digital transformation across the region, influenced by varying levels of economic development and policy support. Also one of the important factor finding is that Infrastructure readiness is a crucial determinant of digital platform adoption. Kosovo leads with 100% broadband access, indicating a well-developed infrastructure that supports the widespread adoption of digital tools. Montenegro (85%) and Serbia (90%) also report high levels of broadband penetration, enabling their SMEs to engage effectively with digital platforms. In contrast, Bosnia and Herzegovina (69%) lags behind, highlighting the need for targeted investments in digital infrastructure, particularly in rural and underserved areas. North Macedonia and Albania also show moderate levels of broadband access, emphasizing the need for continued improvements to bridge connectivity gaps. In this findings workforce readiness

plays a pivotal role in the successful adoption of digital platforms. Serbia leads in providing ICT training for SME employees, with 30% of businesses offering such programs. Montenegro (27%) and Albania (25%) also show relatively strong engagement in training initiatives, reflecting a recognition of the importance of digital skills in fostering knowledge sharing and operational efficiency. However, Kosovo (10%) and Bosnia and Herzegovina (15%) fall significantly behind, indicating a critical need for expanded digital literacy programs. Limited ICT training constrains SMEs in these countries from fully utilizing the potential of digital platforms, further exacerbating regional disparities.

Table 1: Adoption of Digital Platforms in Western Balkan SMEs

Country	Digital Platform Adoption (%)	Broadband Access (%)	ICT Training in SMEs (%)
Albania	45	80	25
Bosnia and Herzegovina	30	69	15
Kosovo	50	100	10
Montenegro	55	85	27
North Macedonia	48	78	20
Serbia	60	90	30

Source: Authors Literature Review findings

These findings point to a strong correlation between infrastructure development, workforce digital readiness, and the adoption of digital platforms among SMEs. Countries with strong broadband infrastructure and higher engagement in ICT training, such as Serbia and Montenegro, tend to perform better in digital platform adoption. In contrast, countries with limited infrastructure and training opportunities, such as Bosnia and Herzegovina and Kosovo, face significant challenges in leveraging these tools for knowledge sharing. The results highlight the urgent need for policymakers and stakeholders to address these disparities. Investments in broadband expansion, particularly in underserved regions, and initiatives to enhance digital literacy and training are essential for enabling SMEs to adopt digital platforms effectively. By addressing these gaps, countries in the Western Balkans can foster greater regional integration, enhance SME competitiveness, and drive innovation through improved knowledge-sharing practices.

4. CONCLUSION

The adoption of digital platforms for knowledge sharing among SMEs in the Western Balkans is a critical step toward development innovation, improving competitiveness, and achieving regional integration in an increasingly digital economy. This research exposes significant disparities in adoption rates across the region, shaped by differences in digital infrastructure, workforce readiness, and supportive policies. These findings bring into line with recent literature emphasizing the importance of strong digital ecosystems for SME growth.

Studies by Lee et al. (2019) underscore that digital platforms are important tools for overcoming resource constraints and enabling real-time collaboration among SMEs. The disparities highlighted in this research—such as Serbia's and Montenegro's strong adoption rates compared to Bosnia and Herzegovina's and Kosovo's lower engagement—reflect broader trends noted by Dabic et al. (2020), who identified limited digital literacy and inadequate infrastructure as key barriers to SME digital transformation in Southeast Europe. Similarly, research by the European Commission (2022) points to the role of policy-driven broadband expansion and targeted skill development programs in accelerating digital adoption.

Workforce digital skills emerged as a critical determinant of platform adoption, consistent with the findings of Kim and Park (2020), who highlight the need for ongoing ICT training to bridge digital divides. In this study, Serbia and Montenegro lead in providing ICT training for SMEs, demonstrating the benefits of integrating training programs into national strategies. Conversely, the limited training opportunities in Kosovo and Bosnia and Herzegovina indicate a gap that policymakers must address.

The research also confirms the importance of regulatory and policy frameworks in fostering SME digital adoption, as observed in OECD reports (2021). Countries with strong data protection laws, cybersecurity measures, and streamlined e-government services are better positioned to build trust in digital platforms, thereby encouraging SME engagement. Furthermore, alignment with international initiatives, such as the EU's Digital Compass 2030, provides

a strategic roadmap for regional development and ensures that SMEs remain competitive in the global market (European Commission, 2023).

To finalize, this research highlights the critical interplay between infrastructure, skills, and policies in shaping the digital transformation of SMEs. By leveraging insights from recent literature and addressing regional disparities, the Western Balkans can unlock the full potential of digital platforms for knowledge sharing, driving economic growth and regional integration. Future research should explore the specific impacts of emerging technologies on SME digital transformation and the long-term outcomes of these interventions.

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