

Digital Transformation and SMEs Competitiveness in Nigeria: An Overview

Aliyu Mukhtar Daneji

Department of Business Administration and Entrepreneurship

Bayero University Kano

Email Address: amdaneji@gmail.com, amdaneji.bus@buk.edu.ng,

Abstract

As global markets have increasingly digitized, SMEs must adopt digital technologies to remain competitive. Nevertheless, there is a lack of comprehensive understanding regarding the extent to which SMEs have embraced digital technology in order to support and promote sustainability objectives. Hence, the primary objective of this study is to present an in-depth review of the digitization of SMEs in relation to sustainability, employing the literature review approach. The study highlights strategies for successful Digital Transformation (DT), emphasizing the need for government support, collaborative ecosystems, incremental implementation, and customer-centric approaches. Through a literature review, this research underscores the critical role of DT in enhancing the competitiveness of SMEs, offering insights and recommendations for policymakers, business leaders, and stakeholders in Kano State and similar contexts.

Keywords: Digital Transformation, Competitiveness, Small and Medium-sized Enterprises (SMEs), Kano State, Nigeria

1.0 Introduction

Globally Small and Medium Enterprises (SMEs) play a major role in most economies, and they serve as the economic engine for growth and development. SMEs account for the majority of businesses worldwide and are important contributors to job creation and global economic development. They represent about 90% of businesses and more than 50% of employment worldwide (World Bank, 2023; Mugano 2024 & Raihan, 2024). According to estimates, SMEs make up 98 percent of businesses and employ 66 percent of the workforce in South and Southeast Asia. In addition, SMEs are the backbone of the Latin America and Caribbean (LAC) economy, providing jobs for 67 percent of the population. Particularly in developing

countries. Formal SMEs contribute up to 40% of national income (GDP) in emerging economies Amin (2023). Despite the lack of data at the continental level, it is widely accepted that SMEs in Africa control the majority of the means of production. In Ghana, for instance, SMEs account for 92% of all firms and generate approximately 70% of GDP (Bilali, 2022). When it comes to driving economic expansion, SMEs are universally regarded as indispensable. They provide important contributions to GDP and economic growth via the employment they create and the products and services they supply to other economic players including Large Enterprises (LEs), non-profit organizations, and the public companies (Umar, 2020).

Small and Medium Enterprises (SMEs) are generally considered as the engine of economic growth as a result of their immense contribution towards employment generation, poverty reduction, export earnings and gross domestic product (Suleiman, Aliyu & Bello, 2021). In Nigeria, they constitute a vital sector in its economy, contributing significantly to employment generation, innovation, and economic growth (Adeleke, 2020). In recent years, digital transformation has emerged as a potential solution to enhance the competitiveness of SMEs by enabling them to streamline operations, reach new markets, and improve customer engagement (UNCTAD, 2021). In developed economies, SMEs that have embraced digital technologies have shown enhanced productivity, innovation capabilities, and market competitiveness (European Commission, 2020). Digital transformation involves the integration of digital technologies into all aspects of business operations, fundamentally changing how businesses operate and deliver value to customers (Westerman et al., 2011).

From the foregoing discussion there are unquestionably many benefits to SMEs from Digital Transformation, but these benefits are accompanied with obstacles, such as SME operators' technological competency (Karyati, 2019). According to Abdullahi et al. (2016), Bello and Sagagi (2017) there are several challenges affecting the performance of SMEs in Nigeria, including poor governance, financial constraints, infrastructural problems, management issues, marketing difficulties, technological challenges, corruption, lack of skilled

labour, unfavourable government fiscal policies and policy inconsistencies, inadequate training, socio-cultural issues, strategic planning problems, multiple taxation, and location and business environment issues. In a more recent study by Jahan (2024) emphasised that lack of government support, collaborative ecosystems, incremental implementation, and customer-centric approaches were the main issues bedevilling SMEs to adopt digital transformation process.

Similar issues and challenges that limit their competitiveness, includes: limited access to capital, infrastructure deficits, and inadequate technological capabilities (Ojo, 2019). Additionally, the adoption of digital technologies among SMEs in developing countries like Nigeria remains uneven due to various barriers, such as lack of digital skills, concerns about data security, and high costs of technology acquisition (Shahada 2023). This paper reviewed some literatures in the related area. Raihan (2024) suggested that the literature review approach is widely regarded as a reliable and robust approach by comprehensively examining existing literature, these reviews provide an overview of the current knowledge and facilitate the identification of crucial issues that need to be addressed, as well as potential areas for future research.

2.0 Conceptual Framework

2.1 Concept of Small and Medium Enterprises

The term "small and medium enterprises" (SMEs) is a synonym for "small and medium-sized enterprises" Al Qudah et al.,

2024). Though, there is no universally standardized definition of the term. The most common classifications of an enterprise as an SME are based on a financial measure and/or the number of personnel (Costa et al., 2023). In the USA, a “small enterprise” in the “Agriculture, Forestry, Fishing, and Hunting” sector is based on annual income for all subsectors except for the logging subsector. In the logging subsector, a “small enterprise” is an enterprise with less than 500 employees. For the “small enterprises” defined by the annual income in this sector, the limit value varies from 1 million to 30 million dollars, depending on their subsectors (Kumar 2024). Brazil and Chile, South American countries. In Brazil, SMEs must have from 20 to 249 permanent employees. However, there is also another definition of SMEs based on the annual income criterion according to the Statute of Micro and Small Enterprises in Brazil. In this case, SMEs have an annual income from 360,000 BRL (Brazilian currency) up to 3,600,000 BRL, except for SMEs in the banking sector that follow a different definition (OECD Brazil 2022).

In Nigeria various institutions have defined SMEs in their own way, based on the policy aims or goals of the entities. Many organizations, including the CBN, NERFUND, and SMEDAN, and sectors of the economy, for example, have different definitions of SMEs. This apparent lack of consistency has caused huge obstacles to policymaking and academic study in this area. For the purposes of this study, SMEs are defined as firms functioning in any

sector of the economy with total assets above five million naira but not exceeding five hundred million naira, with a minimum workforce of ten and a maximum workforce of ninety-nine individuals. This definition was adopted from Nigeria's National Policy on Micro, Small, and Medium Enterprises (MSMEs) (SMEDAN, 2006; SMEDAN and NBS, 2013 as cited in Okijie, S. R., and Effiong (2024).

2.2 Digital Transformation (DT)

The terms “digital transformation,” “digitalization,” and “digitization” have no broadly accepted definition, but they may be synonymous in many cases (Queiroz et al., 2022). However, Costa et al., (2023) states that Digitalization refers to a process where enterprises apply digital technologies in a new way to optimize existing business processes. This enables more efficient coordination among processes. It may add value once it enhances users' experience (Verhoef et al., 2021). Digitalization is a process to enhance competitive advantages, for example, by offering new services through virtual channels or enabling new systems for operations management (Reis et al., 2020). Chavez (2022) defined DT as the use of new digital technologies that influences all aspects of customers' lives and enables major business improvements. While Lemke and Lusch (2015) states that the term digital covers gathering, storing, processing, providing and using information electronically with the help of information technology (IT). Through ever lower costs and the increasing pervasion of IT nowadays large information volumes can be shared worldwide at minimum costs.

From another dimension some scholars reveal that Digital transformation and innovation are closely related concepts that often go hand in hand (Appio, 2021). They are intertwined as organizations leverage innovation to drive their digital transformation initiatives, while digital transformation provides the platform and opportunities for innovation to thrive. They are interconnected and mutually reinforcing, enabling organizations to stay competitive and meet the demands of a digital world. According to Claudia and Mihaela (2021) digital transformation involves the application of digital technologies with the aim of a change of key business operations, products, processes, organizational structures and management concepts. The authors describe manifold benefits like increased sales and productivity as well as innovations in value creation and customer interaction. In addition, Matt (2015) describes digital transformation as a change of an enterprise with the aim to provide new or enhanced products, services or both to the customer. However, in this paper, digital transformation is defined as a fundamental change process in enterprises initiated by new competitive advantages through the evolution of IT into an essential part of the value creation.

3.1 Competitiveness in Small and Medium Enterprises

Competitiveness is nowadays a frequently used term that can be analysed at different levels at the enterprise level or at the level of whole country (Horvathova and Mokrisova (2020). However, Edgar et al., (2024) indicate that the concepts of competitiveness

and competitive strategy make sense when applied to businesses. The term "competitiveness" is used to describe a company's odds of succeeding against rivals in a certain market or industry (Bilali, 2022). Szerb and Terjesen (2020) considers competitiveness as a function of dynamic progressiveness, innovation, and an ability to change and improve. Viewing competitiveness on a firm level, Falciola et al., (2020) expressed that some definitions refer to the lower cost production principle. In contrast, Porter et al (1980) considers competitiveness as a function of dynamic progressiveness, innovation, and an ability to change and improve. While Porter and Krugman are frequently in opposing positions, they agree that the core principle of competitiveness is efficiency (Bagchi et al 2024). Similar view is shared by Francis (2023) that at the firm level Competitiveness measures how well a business sells a certain product in a specific market. It is the ability of a country's companies to compete successfully in both international and local markets by providing services and products, which are superior to those of their competitors in terms of quality and functionality, as well as being offered at competitive prices and delivered on time (Sudirjo 2023).

When discussing a company's long-term competitiveness, Ghag et al., (2023) emphasize that the term "dynamic competitiveness" is often used to describe how well the organization responds to transitions in demand, resource availability, technical advancement, and techniques of competing SMEs Modifications to (a)

production efficiency, (b) creative capabilities, and (c) product differentiation, including product and process innovation, and the development of entirely new markets for both existing and novel products, could be of assistance. According to Horvathova and Mokrisova (2020) define competitiveness similarly as the ability of companies, industries, regions, nations and transnational entities to generate relatively high levels of income from factors of production but also to use them at a sustainable level in the current competitive environment.

Lastly, Daneji and Bayero (2014) states that competitive performance of a firm is based on the available factors operating at various levels, to which Waheed and Zhang (2022) shows that it includes (a) resources (technology, physical capital, skills, people, etc.); market power (customer loyalty and branding); (c) capability to respond to potential competitors including the substitutes for services and products; and (d) flexibility and capacity to respond to the transforming circumstances.

3.2 Relationship between Digital Transformation and SMEs Competitiveness

Finally, based on the observation of 438 Italian SMEs, Denicolai et al. (2021) found that DT positively influences the international performance of SMEs. However, although DT and environmental sustainability are positively related (Costa et al., 2023). Another study by AlMujaini (2021) suggests that SME owners and managers should allocate more importance

to innovation and DT for achieving higher levels of organizational performance. Lastly, another study demonstrated that the availability of digital technologies is not sufficient for improving SME performance. It is also necessary to develop digital technology and relational and innovative capabilities (Troise 2022).

On the other Hand, the extant literature demonstrates how SMEs in Brazil are not mature enough regarding innovation. One of the studies indicates that only 3.65% of SMEs are occasional innovators (Berne 2019). Another study demonstrates that SMEs have no systematic innovation processes (Vasconcelos 2018). six factors were discussed in the metanalysis research by as possibly affecting the adoption of innovation and Digital Transformation (Francisco and Marinho 2022). They were the age of the SMEs' leaders, the age of the SMEs, the gender of the SMEs' leaders, the nature of the SMEs (family business or not), geographical position, and the size of the SMEs. Except for the last two, the other four seemed to affect in the following way: older leaders, older SMEs, SMEs led by women, and family SMEs tend to be more resistant to adopting Digitalisation and systematization of innovation.

Mukhtar et al. (2020) showed how IT affects SMEs' sales performance. Others like Mekhum (2020) explored how supply chain cultural competence and technology adoption affect Thai SMEs' performance. Both aspects affect performance, but supply chain cultural capabilities are vital to technological adoption, according to the

study (Raihan 2024). Dutta et al. (2020) examined how Indian manufacturing SMEs use digital technologies for their functional domains. The survey found that Indian SMEs prioritize industrialization and stressed the need for real-time machine data and performance-based system design and improvement. As reported by Trstenjak et al. (2020), SMEs' company size has a significant impact during development when using digital technology like cloud computing aided by fundamental infrastructure and complex planning methods to outperform traditional firms.

However, a contrary study was conducted by Apriani et al., (2024) and according to the study's findings, consumers' intentions to make online purchases are not significantly impacted by perceived usefulness, perceived ease of use, or perceived risk. On the other hand, buying online intentions are significantly influenced by perceived enjoyment and trust. These results imply that in developing e-commerce platforms and marketing strategies, there should be a focus on fostering consumer trust, delivering enjoyable experiences, and ensuring ease of use and perceived benefits for users. Similarly, Oktora et al., (2022) did a survey in Indonesia, the survey results also showed that the food and beverage industry was the main emphasis for SMEs using e-commerce, while a significant percentage of business owners have chosen not to engage in e-commerce activities for a variety of reasons, including a preference for offline sales, a lack of interest in online selling, a lack of knowledge or skills, and other factors (Oktora et al., 2022).

In Nigeria Khairuddin and Olowosuyi (2020) did a study to determine digital adoption of the Nigerian small and medium enterprises (SMEs) and its relationship with business performance in Lagos State. Results from the regression analysis conducted showed that digital adoption significantly and positively predicted business performance. Similarly, Kateri (2021) corroborated the view that social media adoption greatly impacts on SMEs performance.

4.0 Conclusion

In conclusion, digital transformation holds immense potential to enhance the competitiveness of SMEs in Kano State, Nigeria. By effectively addressing the barriers to digital adoption and leveraging digital technologies, SMEs can improve their operational efficiency, customer engagement, and overall market competitiveness. However, achieving these benefits requires a coordinated effort from all stakeholders to create an enabling environment conducive to digital innovation and growth.

5.0 Limitations and future research

The study has several limitations that suggest future research. Since this paper is a literature based it is recommended that empirical research should be done in order to establish the relationship between Digital Transformation and SMEs Competitiveness in Kano State, Nigeria. Similarly future research could use longitudinal data, if available, to fully understand the dynamic nature of these relationships.

References

- Abdullahi, M. S., Jakada, B. A., & Kabir, S. (2016). Challenges affecting the performance of small and medium scale enterprises (SMEs) in Nigeria. *Journal of Human Capital Development (JHCD)*, 9(2), 21-46.
- Al Qudah, A., Al-Qalawi, U., & Al waked, A. (2024). Deciphering the shadows: an empirical exploration of corruption's impact on SMEs credit costs in OECD countries. *Journal of Financial Crime*.
- AlMujaini, H.; Hilmi, M.F.; Abudaqa, A.; Alzahmi, R. (2021) Corporate Foresight Organizational Learning and Performance: The Moderating Role of Digital Transformation and Mediating Role of Innovativeness in SMEs. *Int. J. Data Netw. Sci.* 5, 703–712.
- Amin, M. (2023). Does competition from informal firms hurt job creation by formal manufacturing SMEs in developing and emerging countries? Evidence using firm-level survey data. *Small Business Economics*, 60(4), 1659-1681.
- Appio, F. P., Frattini, F., Petruzzelli, A. M., & Neirotti, P. (2021). Digital transformation and innovation management: A synthesis of existing research and an agenda for future studies. *Journal of Product Innovation Management*, 38(1), 4-20.
- Apriani, A., Wahdiniawati, S. A., & Perkasa, D. H. (2024). Digital Transformation of SMEs : Boosting Online Shopping Interest through E-Commerce Adoption. *Dinasti International Journal of Digital and Management (DIJDBM)*, 5(3), 595–611.
<https://doi.org/https://doi.org/10.31933/dijdbm.v5i3>
- Bagchi, P., & Sahu, S. K. (2024). The conundrum of porter hypothesis, pollution haven hypothesis, and pollution halo hypothesis: evidence from the Indian manufacturing sector. *Clean Technologies and Environmental Policy*, 1-13.
- Bello, M. A.** and Sagagi, M. S. (2017). Governance, growth and poverty reduction in Nigeria: Learning from global experiences. *Nigerian Journal of Management Technology and Development*, 8 (1): 278 – 291
- Berne, D.F.; Coda, R.; Krakauer, P.; Donaire, D. (2019) The Innovation Challenge in Micro and Small Enterprises (MSE). *Innov. Manag. Rev*, 16, 235–252.
- Bilali, J. B. (2022). A Global Perspective Competitiveness of Small and Medium Sized Enterprises. *Journal of Journal of Enterprise and Business Intelligence*, 2(2), 111–120.
<https://www.semanticscholar.org/paper/ded72ec344868a82486aaf756988110b9dbd7703>
- Bilali, J. B. (2022). A Global Perspective Competitiveness of Small and Medium Sized Enterprises. *Journal of Journal of Enterprise and Business Intelligence*, 2(2), 111–120.
<https://www.semanticscholar.org/paper>

- er/ded72ec344868a82486aaf756988
110b9dbd7703
- Claudia, O., & Mihaela, H. (2021). Digital Transformation as a strategic shift- A Bibliometric analysis. *Studies in Business and Economics*, x(Y), 136–151. <https://doi.org/10.2478/sbe-2021-0050>
- Costa, I., Queiroz, G. A., Nocera, P., Junior, A., Sousa, T. B. De, Yushimito, W. F., & Pereira, J. (2023). Heliyon Sustainable digital transformation in small and medium enterprises (SMEs): A review on performance. *Heliyon*, 9(3), e13908. <https://doi.org/10.1016/j.heliyon.2023.e13908>
- Daneji, A. M., & Bayero, M. A. (2014). Cashless policy and the quest for financial inclusion in Nigeria. In the UUM International Conference on Governance 2014 (p. 74).
- Denicolai, A. Zucchella, G. Magnani (2021) Internationalization, digitalization, and sustainability: are SMEs ready? A survey on synergies and substituting effects among growth paths, *Technol. Forecast. Soc. Change* 166, 120650, <https://doi.org/10.1016/j.techfore.2021.120650>.
- Dutta, G., Kumar, R., Sindhwani, R., & Singh, R. K. (2020). Digital transformation priorities of India's discrete manufacturing SMEs – a conceptual study in perspective of Industry 4.0. *Competitiveness Review: An International Business Journal*, 30(3), 289–314.
- Edgar, F., Zhang, J. A., Podgorodnichenk, N., & Akmal, A. (2024). Competitive strategy delivery in the service sector: a study of the behavioural model. *Personnel Review*, (ahead-of-print).
- Falciola, J., Jansen, M., & Rollo, V. (2020). Defining firm competitiveness: A multidimensional framework. *World Development*, 129, 104857.
- Francis, A. (2023). The concept of competitiveness. In *The competitiveness of European industry* (pp. 5-20). Routledge.
- Francisco, B., & Marinho, D. (2022). Fostering Innovative SMEs in a Developing Country: The ALI Program Experience. *Sustainability* 2022, 14(13344), 1–16. <https://doi.org/https://doi.org/10.3390/su142013344>
- Ghag, N., Acharya, P., & Khanapuri, V. (2023). Analysing the sustainable international competitiveness factors of SMEs by Fuzzy Delphi and Neutrosophic DEMATEL. *Business Strategy & Development*, 6(3), 447-463.
- Horvathova, J., & Mokrisova, M. (2020). Business competitiveness, its financial and economic parameters. *Montenegrin Journal of Economics*, 16(1), 139-153.
- J. Reis, M. Amorim, N. Melˆao, Y. Cohen, M. Rodrigues (2020) Digitalization: a literature review and research agenda, in: Z. Anisic, B. Lalic, D. Gracanin (Eds.), *Proceedings on 25th International Joint Conference on Industrial Engineering and*

- Operations Management – IJCIEOM. IJCIEOM 2019. Lecture Notes on Multidisciplinary Industrial Engineering, pp. 443–456, https://doi.org/10.1007/978-3-030-43616-2_47.
- Jahan, I. M. (2024). Adaptation of ecosystem strategies in continuously evolving environments for sustainable growth.
- Kateri, Z. A. (2021). Impact of social Media adoption on SMEs performance in Kano state, Nigeria. *International Journal of Management Sci. & Entrepreneurship*, 17(7), 141-160.
- Kumar, M., & Wiens, J. (2024). Small Businesses Matter
- Lemke C, Brenner W. Einführung (2015) in die Wirtschaftsinformatik: Verstehen des digitalen Zeitalters. Berlin: Springer Gabler.
- Lusch RF, Nambisan S. (2015) Service Innovation: A service-dominant logic perspective. *MIS Quarterly*. 2015; 39:155–75.
- Matt C, Hess T, Benlian (2015) A. Digital Transformation Strategies. *Bus Inf Syst Eng* 2015; 57:339–43
- Mekhum, W. (2020). Effect of supply chain cultural competence on Thai SMEs performance with mediating role of supply chain technology. *International Journal of Supply Chain Management*, 9(1), 215-224.
- Mugano, G. (2024). Role of SMEs in Economic Development in Africa. In *SMEs and Economic Development in Africa* (pp. 1-16). Routledge.
- Mukhtar, S., Putri, K. Y. S., Aji Suseno, D., Wibowo, A., & Wisnu Wardana, L. (2020). Influence of Information Technology towards the Development Economics of SMEs in Indonesia. *Humanities and Social Sciences Letters*, 8(3), 280–291.
- OECD Brazil, Financing SMEs and Entrepreneurs 2020: an OECD Scoreboard, 2022. Retrieved April 4, 2022, from, <https://www.oecd-ilibrary.org/sites/8153da8d-en/index.html?itemId=/content/component/8153da8d-en>.
- Okijie, S. R., & Effiong, U. E. (2024). Financing and successful micro, small and medium scale enterprise development in Nigeria. *East African Finance Journal*, 3(1), 1-26.
- Oktora, R., Syakillah, A., Kusumatriana, A. L., Fernando, E., Hasyiyati, A. N., Wulandari, V. C., Untari, R., & Sutarsih, T. (2022) Statistik eCommerce.
- P.C. Verhoef, T. Broekhuizen, Y. Bart, A. Bhattacharya, J.Q. Dong, N. Fabian, M. Haenlein (2021) Digital transformation: a multidisciplinary reflection and research agenda, *J. Bus. Res.* 122 889–901, <https://doi.org/10.1016/j.jbusres.2019.09.022>
- Porter, M. E., Delgado, M., Ketels, C., & Stern, S. (2008). Moving to a new global competitiveness index. *The global competitiveness report*, 2009, 43-63.
- Queiroz, G. A., Nocera, P., & Junior, A. (2022). Digitalization as an Enabler to SMEs Implementing Lean-Green? A Systematic Review through the

- Topic Modelling Approach. Sustainability, 14, 1–21.
- Raihan, A. (2024). A review of the digitalization of the small and medium enterprises (SMEs) toward sustainability. *Global Sustainability Research*, 1–16. <https://doi.org/https://doi.org/10.56556/gssr.v3i2.695>.
- Shahadat, M. H., Nekomahmud, M., Ebrahimi, P., & Fekete-Farkas, M. (2023). Digital technology adoption in SMEs: what technological, environmental and organizational factors influence in emerging countries?. *Global Business Review*, 09721509221137199.
- Sheikh Khairuddin, S. M. H., & Olowosuyi, O. S. (2020). Digital Adoption of SME in Nigeria: The Relationship with Business Performance. *Journal of Management and Muamalah*, 10(2), 21-34. Retrieved from <http://jmm.kuis.edu.my/index.php/jurnal/article/view/2>
- Sudirjo, F. (2023). Marketing Strategy in Improving Product Competitiveness in the Global Market. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 63-69.
- Suleiman, A., Aliyu, M. S. & Bello, M. A. (2021). Market Orientation Dimensions and Firm Financial Performance: The Role of Perceived Environmental Dynamism. *Nigeria Journal of Business Administration*, 19 (1)1-21. Available online @ www.njba.uniben.edu.org.ng.
- Szerb, L., & Terjesen, S. (2010). Measuring the competitiveness of small businesses. retrieved May, 30, 2013. (Issue 1, pp. 1–23).
- Troise, C.; Corvello, V.; Ghobadian, A.; O'Regan, N. (2022) How Can SMEs Successfully Navigate VUCA Environment: The Role of Agility in the Digital Transformation Era. *Technol. Forecast. Soc. Chang.* 174, 121227.
- Trstenjak, M., Opetuk, T., Cajner, H., & Tosanovic, N. (2020). Process Planning in Industry 4.0—Current State, Potential and Management of Transformation. *Sustainability*, 12(15), 5878.
- Umar, A I. I. Alasan, and A. M. Mohammed (2020) "SMEs and GDP contribution: An opportunity for Nigeria's economic growth," the *ijbm*, vol. 8, no. 1, [5].
- Vasconcelos, R.; Oliveria, M. (2018) Does Innovation Make a Difference? *Innov. Manag. Rev.*15, 137–154
- Waheed, A., & Zhang, Q. (2022). Effect of CSR and ethical practices on sustainable competitive performance: A case of emerging markets from stakeholder theory perspective. *Journal of Business Ethics*, 175(4), 837-855.
- World Bank. (2023). World Bank SME Finance: Development News, Research, Data|World Bank. Available online: <https://www.worldbank.org/en/topic/sme/finance> (accessed on 16 October 2023).
- Z. Chavez, J.B. Hauge, M. Bellgran (2022) Industry 4.0, transition or addition in

SMEs? A systematic literature
review on digitalization for deviation

management, Int. J. Adv. Manuf.
Technol. 119 (1–2) 57–76.