# Jurnal Penelitian Ekonomi Manajemen dan Bisnis (JEKOMBIS) Vol.2, No.2 Mei 2023

e-ISSN: 2963-7643; p-ISSN: 2963-8194, Hal 194-205

# **Digitalization Impacts on Small Businesses: A Systematic Review**

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Abstract. Digitalization demonstrates the process of using digital means, tools, and platforms to change business models and increase profitability by developing new value-producing opportunities. This study aims to look at the effects of digitization on Small and Medium Enterprises (SMEs) with a systematic review approach from 2019-2023 from the Scopus database which aims to present an accurate and reliable summary of existing evidence by minimizing bias and errors in data collection and analysis. Several researchers focused on examining some of the impacts of digitalization on SMEs such as digital performance, leadership, culture, organization, data management, the concept of internal market orientation (IMO), skills development, labor productivity, economic growth, innovation, human capital, the advantages of developed countries, big business, and online business marketing. From several results, digitalization is an important factor that can improve aspects of SMEs such as performance, sales, effectiveness, and resilience.

**Keywords**: Digitalization, SMEs, Systematic Review

Abstrak. Digitalisasi menunjukkan proses penggunaan sarana, alat, dan platform digital untuk mengubah model bisnis dan meningkatkan profitabilitas dengan mengembangkan peluang penghasil nilai baru. Penelitian ini bertujuan untuk melihat pengaruh digitalisasi pada Usaha Kecil dan Menengah (UKM) dengan pendekatan tinjauan sistematis dari 2019-2023 dari database scopus yang bertujuan untuk menyajikan ringkasan bukti yang ada secara akurat dan dapat diandalkan, dengan meminimalkan bias dan kesalahan dalam data. pengumpulan dan analisis. Beberapa peneliti fokus mengkaji beberapa dampak digitalisasi terhadap UKM seperti kinerja digital, kepemimpinan, budaya, organisasi, pengelolaan data, konsep internal market orientation (IMO), pengembangan keterampilan, produktivitas tenaga kerja, pertumbuhan ekonomi, inovasi, sumber daya manusia, keunggulan negara maju, bisnis besar, dan pemasaran bisnis online. Dari beberapa hasil, digitalisasi menjadi faktor penting yang dapat meningkatkan aspek UKM seperti kinerja, penjualan, efektivitas dan ketahanan.

Kata kunci: Digitalisasi, Systematic Review, UKM

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## **INTRODUCTION**

Along with the rapid development of technology, digitalization has become an unavoidable necessity in modern human life. Digitalization itself refers to the process of transformation from conventional forms to digital forms, which includes the use of digital technology in various aspects of life such as communication, commerce, and entertainment (Kim, Choi, and Lew 2021).

Digitalization enables humans to access information more easily and quickly, thereby accelerating the process of learning, innovation, and development (Priyono, Moin, and Putri 2020). In addition, digitization also enables the creation of new forms of business that are more efficient and innovative, thus helping to increase economic growth (Luo et al. 2022). Small and Medium Enterprises (SMEs) are among economic sectors which are actively and intensively using technology and digitalization.

Small and Medium Enterprises (SMEs) can be considered as an important sector in the Indonesian economy, as they contribute around 60% of the gross domestic product (GDP) and absorb around 97% of the workforce (Suhaili and Sugiharsono 2019). However, many SMEs in Indonesia still experience difficulties in developing their business, especially in terms of market access, financial management and technology (Rosyadi et al. 2020).

One solution that can help SMEs overcome these challenges is to move toward digitalization. Digitalization enables SMEs to increase efficiency in business processes, such as processing financial data, inventory management, and product delivery. In addition, digitization also opens up new market opportunities through e-commerce, social media, or other digital platforms, and the use of AI. Using artificial intelligence (AI) also provides great potential for SMEs in digitalizing. AI can assist SMEs in optimizing inventory management, analyzing customer data, and increasing effectiveness and efficiency in marketing and business management.

One example of the use of AI in SMEs is chatbots that can help process orders or requests from customers automatically, making it easier for SMEs to handle a high number of orders. In addition, AI can also help SMEs in analyzing customer data, so that they can determine more effective marketing strategies.

However, there are still many SMEs that are not ready to digitalize, because they are constrained by limited access to technology and limited human resources who have expertise in information technology (Wendt et al. 2022). Therefore, the government and several private companies have made various efforts to assist SMEs in digitalizing, such as by providing information technology training and guidance, and providing access to technology infrastructure such as the internet and software.

This study aims to look at the impacts of digitalization on Small and Medium Enterprises (SMEs) with a systematic review approach which aims to present an accurate and reliable summary of existing evidence, by minimizing bias and errors in data collection and analysis. Systematic reviews are different from other review methods such as bibliometric reviews which are used to see trends and research focus on a particular discipline (Triansyah, Mitayana, et al. 2023; Triansyah, Gunawan, and Ramadhaniyati 2023; Triansyah and Supardi 2023; Triansyah, Suwatno, and Machmud 2023).

#### THEORETICAL STUDY

Based on the provided search results, digitalization refers to the process of using digital platforms and tools to increase profitability and value of businesses. It is a key aspect of digitalization and digital transformation, which involve leveraging digital technologies to improve business processes and create new opportunities for growth.

One article, published in the Journal of Management, Technology and Entrepreneurship, defines digitization as the framework for digitalization, which is the exploitation of digital opportunities. Digital transformation, in turn, is the process used to restructure economies, institutions, and society on a system level (Rachinger et al. 2019).

Another article proposes to clarify the concept of digitalization by providing an overview of existing theories. It notes that disruptive changes caused by digitalization can trigger digital transformation in different environments due to rapid or disruptive innovations in digital technologies, which create high levels of uncertainty for industries and companies that must adapt to them (Kraus et al. 2021).

Overall, digitalization is an important aspect of the digital age that has become increasingly prevalent in a wide range of industries (Ma, Liu, and Gao 2021). It allows for the efficient processing and storage of information and is a crucial component of digital transformation efforts. Digitalization can be used in Small and Medium

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e-ISSN: 2963-7643; p-ISSN: 2963-8194, Hal 194-205

Enterprises (SMEs). The definition of Small and Medium Enterprises (SMEs) varies across countries, industries, and even among scholars. This lack of a universally accepted definition creates inconsistencies and poses challenges for policymakers, researchers, and entrepreneurs. For instance, the European Union has defined SMEs based on the number of employees and financial thresholds.

## **METHOD**

This study used systematic review from 2019-2023 about Digitalization Impact on Small Businesses. A systematic review is a type of research study that aims to answer a specific research question by systematically identifying, selecting, and evaluating all available evidence related to the question. This approach is characterized by a comprehensive search strategy designed to identify all relevant published and unpublished work on a subject, a systematic integration of search results, and a critique of the extent, nature, and quality of evidence in relation to a particular research question. Systematic reviews are considered to provide the highest level of evidence on the hierarchy of evidence pyramid and are conducted following rigorous research methodology (Caldwell and Bennett 2020; Siddaway, Wood, and Hedges 2019).

In this research, the keyword used is "Digitalization Impact on Small Businesses" in the Scopus database. After conducting the screening, the researchers found 17 articles that met the predetermined criteria.

# RESULT AND DISCUSSION

# Focus of research in studying digitalization in SMEs

**Table 1. Focus Study Digitalization in SMEs** 

No	Author	Year	Focus Study
	Kilimis et al (2019)	2019	Analyze factors that affect
			Brandenburg-State, DEU SMEs in their
1			decision making process for an effective
			implementation of digital technologies
			in their daily business routine.
		2019	This research attempts to develop a
			model, based on a literature review and
			case studies, in order to evaluate digital
	Gamache, Abdul-Nour,		performance as well as to study the
2	and Baril (2019)		assumption that some parameters of the
	and Dam (2019)		model, such as Leadership, Culture and
			organization and Data management for
			example, have different impacts on the
			performance of SMEs
		2019	The purpose of this paper is to study
	Baber, Ojala, and Martinez (2019)		how digital business models evolve
3			when entrepreneurs move to new digital
3			platforms and how this evolution is
			related to effectuation and causation
			logics
	Gamache, Abdul-Nour, and Baril (2020)	2020	This research attempts to evaluate and
4			identify the most effective ways to
4			facilitate the digitalization in a context
			of manufacturing SMEs
5	Pöschl and Freiling (2020)	2020	Study the effects of succession
			processes on those companies'
			digitalization activities. Utilizing a
			unique data set comprising of around

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			340 pages of transcribed interviews
			within a multiple case study involving
			four family firms in the DACH region
			of Europe, we perform exploratory
			research of this matter
			The present study examines the concept
	W. J. D.: All	2020	of internal market orientation (IMO)
			and its effects on organisational
			performance comprising job satisfaction
			and employees' loyalty in the small and
6			medium enterprises (SMEs) research
	Kazakov, Ruiz-Alba,		context. Rooted in administrative
	and Muñoz (2020)		theory, human relations theory,
			conventional theories of IMO and
			internal marketing, this study develops a
			novel iIMO theoretical framework that
			evinces the proliferation of ICTs in
			SMEs
	Viswanathan and Telukdarie (2021)	2021	Presents an approach to SME support
7			comprising skills development and
,			digitalization as applied throught an
			innovation hub
	Priadko-Kanybekova (2021)	2021	The paper considers the relationships
			between labor productivity, economic
8			growth, innovation, human capital, and
			the advantages of developed countries
			and big business in the specified period
9	Mukhoryanova et al. (2021)	2021	This area represents a new field since
			the research of the impact of the sharing
			economy on small enterprises is still in
			its infancy
L		1	

10	Hrosul et al. (2022)	2022	Establish the regularity of the impact of digitalization in the world's economies on the adaptive management of business entities. This can be achieved by conducting a regression analysis to reflect the dependence of the influence of factors on the level of digitalization in 25 economies of the world according to the IMD digital competitiveness ranking
11	Roman and Rusu (2022)	2022	Analyse the degree of digitalisation of SMEs in EU countries and the obstacles they face in digitizing their business
12	Charina et al. (2022)	2022	This research employed a Participatory Action Research (PAR) approach involving academics, government, the community, and four small industries in West Java, Indonesia
13	Zhen et al. (2022)	2022	Review the literature on the potential direct and indirect effects of online business marketing on the performance of SMEs in order to determine which factors are most important in determining a company's success
14	Ayu et al. (2023)	2023	Describe how the MSME system responds to environmental changes.  Likewise, the autopoietic concept puts emphasis on self-referential, namely, the development of a system based on his own needs through communication, which will be closely related to the sustainability of the digital-based

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e-ISSN: 2963-7643; p-ISSN: 2963-8194, Hal 194-205

			MSME system. From a systems perspective, the resonance capability of the system in the digital ecosystem will also be detected.
	Gaweł, Mroczek-		See whether and how digitalization has
15	D browska, and	2023	influenced the internationalization
	Pietrzykowski (2023)		models of Polish SMEs
16	Chen et al. (2023)	2023	Studied the factors influencing SMEs' adoption of IS backup systems in the hope that the critical decision-making behaviors of SMEs regarding the issue of IS could be learned. Practical suggestions can be made for the marketing schemes adopted by IS manufacturers concerning the planning of IS backup systems
17	Gilli, Lettner, and Guettel (2023)	2023	Examining the impact digitalization will have in the future on the relationship between managers and their team members as well as on the required leadership skills

Overall, several researchers focused on examining some of the impacts of digitalization on SMEs such as digital performance, leadership, culture, organization, data management, the concept of internal market orientation (IMO), skills development, labor productivity, economic growth, innovation, human capital, the advantages of developed countries, big business, and online business marketing.

Meanwhile, several research results show that digitalization has a significant impact on the performance of SMEs. As research conducted by Gamache et al. (2019) the most significant parameters that tend to augment the digital performance and thus help to foster a digital transformation in SMEs are mainly the management commitment and exemplarity (28%), the acquisition and development of skills (26%), the digital architecture (42%), the automation (42%), the quality of data (42%) and the use of the e-

commerce (42%). The purpose of this study is then to target those important elements that have the most effect on the performance of small and medium-sized manufacturing companies, with the aim of guiding efforts and investments both in academia and in the real world. Kazakov et al. (2020) shows that the viability of the ICT-supported iIMO framework, its positive effects on SMEs' organisational performance, and exhibited ample empirical evidence for the proficiency of the iIMO concept and its suitability for operationalisation by SMEs. Other researchers like Charina et al. (2022) show that the sustainable education program through learning activities and direct practice provides valuable knowledge and experience for small industries in designing economic, social, and environmental innovations. This shows that digitalization is an important factor that can improve aspects of SMEs such as performance, sales, effectiveness, and resilience.

## CONCLUSION AND SUGGESTION

Digitalization actively presents usage of digital means to enhance and improve business models and increase the profitability of businesses. It is a key aspect of digitalization and digital transformation, which involve leveraging digital technologies to improve business processes and create new opportunities for growth, several researchers focused on examining some of the impacts of digitalization on SMEs such as digital performance, leadership, culture, organization, data management, the concept of internal market orientation (IMO), skills development, labor productivity, economic growth, innovation, human capital, the advantages of developed countries, big business, and online business marketing. From several results, digitalization is an important factor that can improve aspects of SMEs such as performance, sales, effectiveness and resilience.

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e-ISSN: 2963-7643; p-ISSN: 2963-8194, Hal 194-205

#### REFERENCES

- Ayu, Dhyah, Retno Widyastuti, Indah Wahyuni, Peni Wastutiningsih, and D. A. R. Widyastuti. 2023. "Creating a Digital Ecosystem for Sustainable Development: Insights from Indonesian Micro, Small and Medium Enterprises." *Kasetsart Journal of Social Sciences* 44:27–38.
- Baber, William W., Arto Ojala, and Ricardo Martinez. 2019. "Effectuation Logic in Digital Business Model Transformation: Insights from Japanese High-Tech Innovators." *Journal of Small Business and Enterprise Development* 26(6–7):811–30. doi: 10.1108/JSBED-04-2019-0139.
- Caldwell, Patrina HY, and Trish Bennett. 2020. "Easy Guide to Conducting a Systematic Review." *Journal of Paediatrics and Child Health* 56(6):853–56. doi: 10.1111/jpc.14853.
- Charina, Anne, Ganjar Kurnia, Asep Mulyana, and Kosuke Mizuno. 2022. "Sustainable Education and Open Innovation for Small Industry Sustainability Post COVID-19 Pandemic in Indonesia." *Journal of Open Innovation: Technology, Market, and Complexity* 8(4). doi: 10.3390/joitmc8040215.
- Chen, You Shyang, Jerome Chih Lung Chou, Yu Sheng Lin, Ying Hsun Hung, and Xuan Han Chen. 2023. "Identification of SMEs in the Critical Factors of an IS Backup System Using a Three-Stage Advanced Hybrid MDM–AHP Model." *Sustainability* (*Switzerland*) 15(4):1–29. doi: 10.3390/su15043516.
- Gamache, Sébastien, Georges Abdul-Nour, and Chantal Baril. 2019. "Development of a Digital Performance Assessment Model for Quebec Manufacturing SMEs." *Procedia Manufacturing* 38(2019):1085–94. doi: 10.1016/j.promfg.2020.01.196.
- Gamache, Sébastien, Georges Abdul-Nour, and Chantal Baril. 2020. "Evaluation of the Influence Parameters of Industry 4.0 and Their Impact on the Quebec Manufacturing SMEs: The First Findings." *Cogent Engineering* 7(1):0–31. doi: 10.1080/23311916.2020.1771818.
- Gaweł, Aleksandra, Katarzyna Mroczek-D browska, and Maciej Pietrzykowski. 2023. "Digitalization and Its Impact on the Internationalization Models of SMEs." *FGF Studies in Small Business and Entrepreneurship* 19–40. doi: 10.1007/978-3-031-11371-0 2.
- Gilli, Katharina, Nicole Lettner, and Wolfgang Guettel. 2023. "The Future of Leadership: New Digital Skills or Old Analog Virtues?" *Journal of Business Strategy* (18133). doi: 10.1108/JBS-06-2022-0093.
- Hrosul, Viktoriia, Roman Buhrimenko, Alina Kolesnyk, Polina Smirnova, and Hanna Balamut. 2022. "Adaptive Management of Business Entities in the Context of Digitalization of the Economy." *Economic Affairs (New Delhi)* 67(4):947–57. doi: 10.46852/0424-2513.4s.2022.28.
- Kazakov, Sergey, José L. Ruiz-Alba, and María M. Muñoz. 2020. "The Impact of Information and Communication Technology and Internal Market Orientation Blending on Organisational Performance in Small and Medium Enterprises." European Journal of Management and Business Economics 30(2):129–51. doi: 10.1108/EJMBE-04-2020-0068.

- Kilimis, Panagiotis, Wenchao Zou, Marlon Lehmann, and Ulrich Berger. 2019. "A Survey on Digitalization for SMEs in Brandenburg, Germany." *IFAC-PapersOnLine* 52(13):2140–45. doi: 10.1016/j.ifacol.2019.11.522.
- Kim, Seunghyun, Byungchul Choi, and Yong Kyu Lew. 2021. "Where Is the Age of Digitalization Heading? The Meaning, Characteristics, and Implications of Contemporary Digital Transformation." *Sustainability* 13(16):8909. doi: 10.3390/su13168909.
- Kraus, Sascha, Paul Jones, Norbert Kailer, Alexandra Weinmann, Nuria Chaparro-Banegas, and Norat Roig-Tierno. 2021. "Digital Transformation: An Overview of the Current State of the Art of Research." *SAGE Open* 11(3):215824402110475. doi: 10.1177/21582440211047576.
- Luo, Shiyue, Nafisa Yimamu, Yueran Li, Haitao Wu, Muhammad Irfan, and Yu Hao. 2022. "Digitalization and Sustainable Development: How Could Digital Economy Development Improve Green Innovation in China?" *Business Strategy and the Environment*. doi: 10.1002/bse.3223.
- Ma, Zhengwei, Yiran Liu, and Yida Gao. 2021. "Research on the Impact of COVID-19 on Chinese Small and Medium-Sized Enterprises: Evidence from Beijing" edited by L. Vasa. *PLOS ONE* 16(12):e0257036. doi: 10.1371/journal.pone.0257036.
- Mukhoryanova, Oksana, Larisa Kuleshova, Nina Rusakova, and Olga Mirgorodskaya. 2021. "Sustainability of Micro-Enterprises in the Digital Economy." *E3S Web of Conferences* 250. doi: 10.1051/e3sconf/202125006008.
- Pöschl, Alexander, and Jörg Freiling. 2020. "The Impact of Family-External Business Succession on Digitalization: Exploring Management Buy-Ins." *International Journal of Information Systems and Project Management* 8(2):24–46. doi: 10.12821/ijispm080202.
- Priadko-Kanybekova, Olga. 2021. "On the Beginning of Changes in Technological and Economic Structure of Society and Problems of Sustainable Growth of Small and Medium-Sized Businesses." *E3S Web of Conferences* 291. doi: 10.1051/e3sconf/202129104007.
- Priyono, Anjar, Abdul Moin, and Vera Nur Aini Oktaviani Putri. 2020. "Identifying Digital Transformation Paths in the Business Model of SMEs during the COVID-19 Pandemic." *Journal of Open Innovation: Technology, Market, and Complexity* 6(4):104. doi: 10.3390/joitmc6040104.
- Rachinger, Michael, Romana Rauter, Christiana Müller, Wolfgang Vorraber, and Eva Schirgi. 2019. "Digitalization and Its Influence on Business Model Innovation." *Journal of Manufacturing Technology Management* 30(8):1143–60. doi: 10.1108/JMTM-01-2018-0020.
- Roman, Angela, and Valentina Diana Rusu. 2022. "Digital Technologies and the Performance of Small and Medium Enterprises." *Studies in Business and Economics* 17(3):190–203. doi: 10.2478/sbe-2022-0055.
- Rosyadi, Slamet, Ayusia Sabhita Kusuma, Elpeni Fitrah, Agus Haryanto, and Wiwiek Adawiyah. 2020. "The Multi-Stakeholder's Role in an Integrated Mentoring Model for SMEs in the Creative Economy Sector." *SAGE Open* 10(4):215824402096360.

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e-ISSN: 2963-7643; p-ISSN: 2963-8194, Hal 194-205

doi: 10.1177/2158244020963604.

- Siddaway, Andy P., Alex M. Wood, and Larry V. Hedges. 2019. "How to Do a Systematic Review: A Best Practice Guide for Conducting and Reporting Narrative Reviews, Meta-Analyses, and Meta-Syntheses." *Annual Review of Psychology* 70(1):747–70. doi: 10.1146/annurev-psych-010418-102803.
- Suhaili, Muhammad, and Sugiharsono Sugiharsono. 2019. "Role of MSME in Absorbing Labor and Contribution to GDP." *Economics Development Analysis Journal* 8(3):301–15. doi: 10.15294/edaj.v8i3.35229.
- Triansyah, Fadli Agus, Ashari Gunawan, and Resti Ramadhaniyati. 2023. "Factors of Indonesia Economic Growth (2017-2022)." *Jurnal Pendidikan Ekonomi Dan Bisnis (JPEB)* 11(1):51–65.
- Triansyah, Fadli Agus, Mitayana, Fitri Yanti, Andi Rabuandika, and Ilham Muhammad. 2023. "Augmented Reality Research in Middle Schools: Bibliometric Review." *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran* 4(1):369–78.
- Triansyah, Fadli Agus, and Endang Supardi. 2023. "Fokus Penelitian Berpikir Kritis Siswa Dalam Pembelajaran Ekonomi: Bibliometrik Analisis 2019-2023." *Jurnal Simki Pedagogia* 6(1):130–39.
- Triansyah, Fadli Agus, Suwatno Suwatno, and Amir Machmud. 2023. "Trends and Research Focus of the Jigsaw Learning Model in Economic Learning: Bibliometric Review and Analysis." *Jurnal Penelitian Pendidikan* 23(1):1–15.
- Viswanathan, Radhakrishnan, and Arnesh Telukdarie. 2021. "A Systems Dynamics Approach to SME Digitalization." *Procedia Computer Science* 180(2019):816–24. doi: 10.1016/j.procs.2021.01.331.
- Wendt, Charlotte, Martin Adam, Alexander Benlian, and Sascha Kraus. 2022. "Let's Connect to Keep the Distance: How SMEs Leverage Information and Communication Technologies to Address the COVID-19 Crisis." *Information Systems Frontiers* 24(4):1061–79. doi: 10.1007/s10796-021-10210-z.
- Zhen, Chen, Siti Aida Samikon, Azrul Fazwan Kharuddin, Audita Nuvriasari, and Hendri Pratama. 2022. "The Impact of Online Business Marketing on Small and Medium-Sized Enterprise Performance (SMEs)." *Quality Access to Success* 23(191):21–27. doi: 10.47750/QAS/23.191.03.