June, 2023

Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

remittancesreview.com

Received: 11 November 2022 Accepted: 28 March, 2023 DOI: https://doi.org/10.33182/rr.v8i4.106

# Digital Investment in Business Development. Critical Review

Silvana Patricia Garófalo Morocho<sup>1</sup>, Silvia Rosa Pacheco Mendoza<sup>2</sup>, Barreno Naranjo Danilo Geovanny, MsC<sup>3</sup>, Eddy Stalin Alvarado Pacheco<sup>4</sup>

#### Abstract

Digital investment has become a fundamental strategy for business development today. With the increasing digitization of companies, there is a need to adapt and take advantage of technological opportunities to improve efficiency, productivity, and competitiveness. Digital investment involves using financial and technological resources to implement digital solutions that drive business innovation. This research aims to explore the benefits, importance, and limitations of digital investment in business development. An exhaustive bibliographic review was conducted using the PRISMA methodology, and inclusion and exclusion criteria were established. The search engines Scopus, Scielo, and Taylor & Francis were used to gather relevant information, resulting in the identification of 33 articles published in scientific journals that strictly met the search criteria. The results of this study demonstrate that the implementation of digital strategies is crucial to drive business development and enhance the competitiveness of SMEs. However, it is emphasized that there is a need to strengthen the security of digital systems and provide appropriate education to personnel regarding the use of technologies, thus maximizing their potential.

**Keywords:** Digital, Investment, Development, SMEs, Business.

#### Introduction

Currently, digital investment has become a strategy for modern business development, as companies are increasingly digitalized. Therefore, organizations face the need to adapt and take advantage of the opportunities offered by technology to improve their efficiency, productivity, and competitiveness. Digital investment involves the use of financial and technological resources to implement digital solutions that drive business innovation (Medina Chicaiza et al., 2022)

Business administration focuses on efficiently achieving goals and providing an appropriate perspective. Managers face challenges due to social changes that impact both the internal and external environment of companies. The Internet has become an interactive medium that enables

<sup>&</sup>lt;sup>1</sup> Programa de Maestría en Administración de Empresas. Dirección de Posgrado y Educación Contínua. Universidad Estatal de Bolívar. <a href="https://orcid.org/0009-0005-1253-0441email:silvig12vico@gmail.com">https://orcid.org/0009-0005-1253-0441email:silvig12vico@gmail.com</a>

<sup>&</sup>lt;sup>2</sup> Programa de Maestría en Administración de Empresas. Dirección de Posgrado y Educación Contínua. Universidad Estatal de Bolívar. <a href="https://orcid.org/0000-0003-4945-1489">https://orcid.org/0000-0003-4945-1489</a> email: <a href="mailto:spacheco@ueb.edu.ec">spacheco@ueb.edu.ec</a>

<sup>&</sup>lt;sup>3</sup> Programa de Maestría en Administración de Empresas. Dirección de Posgrado y Educación Contínua. Universidad Estatal de Bolívar. <a href="https://orcid.org/0000-0001-7557-4453">https://orcid.org/0000-0001-7557-4453</a> email: <a href="mailto:dbarreno@ueb.edu.ec">dbarreno@ueb.edu.ec</a>

<sup>&</sup>lt;sup>4</sup> Programa de Maestría en Administración de Empresas. Dirección de Posgrado y Educación Contínua. Universidad Estatal de Bolívar. <a href="https://orcid.org/0002-6366-8329">https://orcid.org/0002-6366-8329</a> email: <a href="mailto:ealvarado@ueb.edu.ec">ealvarado@ueb.edu.ec</a>

Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

direct and personalized communication with customers without geographical or temporal limitations. The incorporation of new technologies in the business environment provides an opportunity to achieve higher profitability and optimize decision-making, which in turn drives greater customer engagement. (Salazar-Corrales I, Paucar-Coque II, & Borja-Brazales III, 2017)."

The use of digital tools has become increasingly important in the business environment due to the challenges posed by digital transformation today. Entrepreneurs recognize that traditional methods have reached their limit in the digital world. Therefore, organizations are investing more resources in digital tools to drive their development, growth, and competitiveness. However, this trend also entails an increase in cyber risks and threats, which escalate as the digital economy expands (Misko, Smirnov, & Kotelkin, 2022).

According to Lee and Trimi (2021), it is essential to recognize the possibilities and benefits that arise from adopting new technologies in response to the COVID-19 pandemic. Business digital transformation has played a crucial role in the present, as technological advancements have helped overcome the global economic crisis stemming from the pandemic, thus enabling the recovery of the global economy.

Digitalization is presented as a solution to overcome market constraints that limit investments and business activities. An example of this is the Chinese government's initiative in 2015 with its "Internet Plus" action plan. As a result of this proposal, numerous companies in traditional sectors have made notable efforts towards digitizing their operations (Yu et al., 2023). In another research conducted by Wang (2022), it is mentioned that the COVID-19 pandemic has had a significant effect on small businesses in the United States, which have been compelled to allocate resources to technology, education, and the development of social networks in underserved communities, in order to promote an inclusive business environment.

Considering the research by Bejlegaard, Sarivan, and Waehrens (2021) on the impact of digital technologies on supply chain coordination strategies, the positive influence of digital transformation on an engineer-to-order (ETO) company is highlighted. This strategic digital transformation aims to increase process efficiency and expand market reach through the offering of innovative and customized products.

The company achieves improved product delivery performance by digitally integrating sales operations, product development, and production preparation. This allows for the adoption of digital business intelligence and the combination of administrative and engineering functions into a single entity (Núñez Cudriz and Miranda Corrales, 2020). The adoption of advanced technological solutions challenges traditional coordination models in the supply chain of SMEs by equalizing delivery time with that of make-to-order manufacturing companies. This enables them to compete more effectively and enhance their market position (Bejlegaard, Sarivan, and Waehrens, 2021).

Nowadays, digitization has impacted all areas of economic activity. The digital economy has advanced in markets, promoting the use of digital strategies to drive growth and competitiveness. An example is the digitalization of marketing, which ensures that brands are available to customers at the right time. Therefore, professionals must quickly acquire knowledge about marketing tools and technologies, adapting them to the specific needs of each company (Sheremetyeva, Gorshkova, and Mitropolskaya-Rodionova, 2022).

This article aims to identify the benefits, importance, and limitations of digital investment in the process of business development. This objective was achieved by fulfilling the following specific objectives: Analyzing the benefits offered by digital investment in terms of efficiency, productivity, and business competitiveness; Exploring the limitations and challenges associated with the implementation of digital solutions in the business sphere; Understanding the importance of digital investment for business development.

# Methodology

This literature review is based on the widely used PRISMA method in business administration research (Page et al., 2021). The review approach is descriptive-narrative. The scientific databases used for the literature review were Scopus, Scielo, and Taylor & Francis. Search algorithms were employed, combining different terms and boolean operators (AND and OR).

For the analysis, comparative analysis criteria were used to examine the benefits, importance, and limitations of digital investment for business development. All the information from the selected articles for the literature review was managed using Microsoft Excel. This tool was used to record the search strings, applied filters, and collected information.

Table 1: Databases Used for Information Search

| Database         | Search algorithms  |
|------------------|--|
| Scopus           | (TITLE-ABS-KEY ("influence of digital technologies") OR TITLE-ABS-   |
|                  | KEY ("digital marketing") OR TITLE-ABS-KEY ("digital investment") OR |
|                  | TITLE-ABS-KEY ("technology investment") AND TITLE-ABS-KEY (          |
|                  | "sme development") OR TITLE-ABS-KEY ("business development") OR      |
|                  | TITLE-ABS-KEY ("business administration"))                           |
| Taylor & Francis | [All: digital investment] AND [All: business development]            |
| Scielo           | (Use of technology) AND (Business development)                       |

Source: Own elaboration

For the analysis, comparative analysis criteria were used to assess the benefits, importance, and limitations of digital investment for business development. All the information from the selected articles for the literature review was managed using the Microsoft Excel tool. In this tool, the search strings, applied filters, and collected information were recorded.

#### Results and Discussion

The selection process was carried out through a discard process, which is detailed in the figure 1.

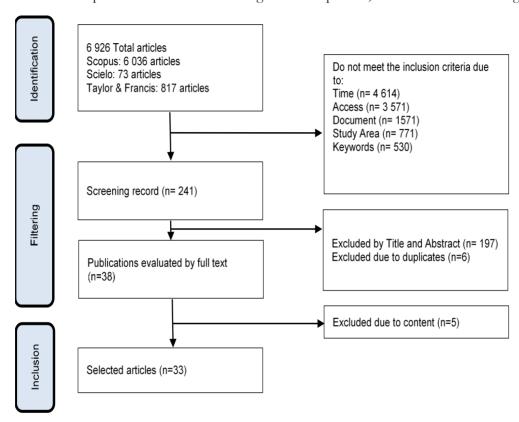


Figure 1: Article Selection Diagram (PRISMA)

Source: PRISMA flowchart

After conducting a comprehensive literature review, a total of 6,926 articles were identified. Through the application of filters and a thorough review, a final selection of 33 documents was made, from which the aforementioned comparison criteria were obtained.

Table 2: Traceability of selected articles

| Title  | Year | Countr<br>y           | Qua<br>rtile | Search<br>Database | Journal   |
|--|------|-----------------------|--------------|--------------------|---|
| Convergence innovation in the digital age and in the COVID-19 pandemic crisis  | 2021 | United<br>States      | Q1           | Scopus             | Journal of<br>Business<br>Research  |
| Digitalization as a means of African countries economic development sustainability   | 2021 | United<br>States      | Q1           | Scopus             | ACM International Conference Proceeding Series  |
| Resilience of business strategy to emergent and future conditions  | 2021 | United<br>Kingdo<br>m | Q1           | Scopus             | Journal of Risk<br>Research   |
| Critical factors influencing the sustainable construction capability in prefabrication of chinese construction enterprises           | 2020 | Switzerl<br>and       | Q2           | Scopus             | Sustainability  |
| A Bibliometric Analysis and Systematic<br>Review on E-Marketplaces, Open<br>Innovation, and Sustainability                           | 2022 | Switzerl<br>and       | Q2           | Scopus             | Sustainability  |
| Business development and optimization of smes' growth through digital marketing  | 2022 | Turkey                | Q3           | Scopus             | International Journal of eBusiness and eGovernment Studies                                      |
| IoT technologies as instruments for<br>SMEs' innovation and sustainable<br>growth  | 2021 | Switzerl<br>and       | Q2           | Scopus             | Sustainability  |
| Supporting innovation and growth of microenterprises in peripheral region  | 2021 | United<br>Kingdo<br>m | Q2           | Scopus             | Proceedings of<br>the European<br>Conference on<br>Innovation and<br>Entrepreneurshi<br>p, ECIE |
| The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in Montenegro | 2020 | United<br>States      | Q1           | Scopus             | Technology in<br>Society  |
| Strategic action fields of digital transformation: An exploration of the strategic action fields of Swiss SMEs and large enterprises | 2020 | United<br>Kingdo<br>m | Q2           | Scopus             | Journal of<br>Strategy and<br>Management  |
| Improving the business performance of SMEs through digital marketing training  | 2018 | United<br>States      | Q2           | Scopus             | Economics and<br>Business   |

June, 2023 Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

|  |      |                       |     |        | International   |
|--|------|-----------------------|-----|--------|---|
| Effect of blockchain technology initiatives on firms' market value   | 2022 | German<br>y           | Q1  | Scopus | Financial<br>Innovation   |
| Management action and new technological trends in Peruvian SMEs  | 2023 | Perú                  | N/A | Scopus | Acción gerencial<br>y nuevas<br>tendencias<br>tecnológicas en<br>pymes peruanas |
| The Role of Digital Transformation in<br>High-Quality Development of the<br>Services Trade   | 2023 | Switzerl<br>and       | Q2  | Scopus | Sustainability  |
| The Impact of the Omnibus Low Cipta<br>Kerja on the Sustainability of MSMEs<br>and Economic Growth by Applying the<br>Canvas Model Business Method and the<br>Use of Financial Technology, Especially<br>Crowdfunding and Microfinance | 2023 | United<br>Kingdo<br>m | Q3  | Scopus | International information and engineering technology association                |
| Innovation and E-Commerce Models,<br>the Technology Catalysts for Sustainable<br>Development: The Emirate of Dubai<br>Case Study   | 2023 | Switzerl<br>and       | Q2  | Scopus | Sustainability  |
| Impact of Crisis on Sustainable Business<br>Model Innovation—The Role of<br>Technology Innovation  | 2022 | Switzerl<br>and       | Q2  | Scopus | Sustainability  |
| Impact of Enterprise Resource Planning (ERP) Implementation on Performance of an Education Enterprise: A Structural Equation Modeling (SEM)  | 2021 | Poland                | Q3  | Scopus | Studies in<br>Business and<br>Economics   |
| Youth entrepreneurial self-efficacy towards technology for online business development   | 2020 | Europea<br>n          | Q3  | Scopus | Innovation and<br>Entrepreneurshi<br>P  |
| Innovation and the impact of technology on women entrepreneurs in small and medium enterprises in Singapore  | 2014 | Pakistan              | Q4  | Scopus | World Applied<br>Sciences Journal   |
| Awareness of business administration students of the role of digital marketing in the growth of e-commerce   | 2023 | Brazil                | Q4  | Scopus | International<br>Journal of<br>business review                                  |
| Challenges faced by small, medium and micro enterprises in Gauteng: A case for entrepreneurial leadership as an essential tool for success   | 2023 | South<br>África       | Q3  | Scielo | Southern African Journal of Entrepreneurshi p and Small Business                |

June, 2023 Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

|  |      |                       |     |                     | Management   |
|--|------|-----------------------|-----|---------------------|--|
| Aplicación de las tecnologías de información y comunicación en el desarrollo de las Micro y Pequeñas empresas                              | 2021 | Cuba                  | N/A | Scielo              | Conrado  |
| Influencia del comercio electrónico en el desempeño financiero de las pymes en Manizales, Colombia   | 2022 | Colomb<br>ia          | Q4  | Scielo              | Innovar  |
| El marketing digital en las empresas de<br>Ecuador   | 2019 | India                 | Q1  | Dialnet             | Journal of<br>Science and<br>Research:<br>Revista Ciencia e<br>Investigación |
| El marketing digital y su influencia en la administración empresarial  | 2017 | N/A                   | Q1  | Dialnet             | Dominio de las ciencias  |
| Harnessing AI for business development: a review of drivers and challenges in Africa   | 2021 | United<br>Kingdo<br>m | Q1  | Taylor &<br>Francis | Production Planning & Control  |
| A business ecosystem framework for<br>SME development through associative<br>and non-associative business structures<br>in the digital age | 2021 | United<br>Kingdo<br>m | Q2  | Taylor &<br>Francis | Cogent Business<br>& Management  |
| Evaluation of location's attractiveness for business growth in smart development   | 2018 | United<br>Kingdo<br>m | Q2  | Taylor &<br>Francis | Economic<br>Research-<br>Ekonomska<br>Istrazivanja                           |
| Business in the digital age: Digital innovation outcome, exit and the founder's start-up experience role                                   | 2022 | United<br>States      | Q2  | Taylor &<br>Francis | Journal of the<br>International<br>Council for<br>Small Business             |
| Information technology and knowledge-<br>based business development  | 2010 | United<br>Kingdo<br>m | Q2  | Taylor &<br>Francis | Behaviour & Information Technology   |
| Manufacturing-led development in the digital age: how power trumps technology  | 2020 | United<br>Kingdo<br>m | Q1  | Taylor &<br>Francis | Third World<br>Quarterly   |
| Size matters: the impact of combinations of ICT assets on the performance of Chilean micro, small and medium enterprises                   | 2019 | United<br>Kingdo<br>m | Q1  | Taylor &<br>Francis | Information<br>Technology for<br>Development                                 |

Fuente: Elaboración propia Nota: Información proveniente de la revisión sistemática.

The literature review revealed that the majority of relevant research was conducted in 2021, with nine articles, while only one article was found in 2017. The Scopus database contained the highest

Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

number of articles (21), while the remaining databases hosted the rest of the research. The United Kingdom topped the list of countries with the most research (10), followed by Switzerland (6) and the United States (5), with other countries having only one article each. In terms of journal quartiles, 39% of the articles were located in Q2, 30% in Q1, 15% in Q3, and only 9% in Q4. 6% did not apply to any quartile (Table 2).

Digital innovation is a key factor in improving efficiency, competitiveness, and decision-making in organizations, as well as creating new business models, reducing costs, and improving quality of life (Lee & Trimi, 2021). This is reinforced by the idea that the digital economy drives business development in Africa, generating economic growth and job creation (Guzikova & Somga Bitchoga, 2021). Considering the research by Quenum et al. (2021), technological investments propose a methodology for evaluating and managing the disruptive impact of systems perspectives, which is essential to ensure a strategic and efficient approach in technology implementation. On the other hand, in the field of sustainable construction in China, critical factors such as business expansion, execution quality, technological investment, return on investment, and government strategies are identified (Dang et al., 2020). This shows that technological investment is essential to promote sustainability and growth in this sector.

Therefore, Cano et al. (2022) highlights the importance of digital markets as they facilitate access to buyers, increase visibility, and reduce transaction costs. This statement supports the idea that digital marketing is an effective tool for improving the reach and efficiency of businesses (Muflih & Ratna, 2022). Digital marketing offers personalization, effectiveness, competitive advantage, and better business outcomes (Melović et al., 2020). The Internet of Things (IoT) offers benefits to SMEs such as efficiency, cost reduction, and improved customer experience, driving their sustainable growth (Vodă et al., 2021). In the context of microenterprises, innovation is based on growth, collaboration, and digital learning for the future (Manninen, 2021).

These benefits are supported by other authors who emphasize the importance of digital transformation, new technologies, and digital leadership in business development (Peter, Kraft, & Lindeque, 2020). Likewise, Absah, Muchtar, and Qamariah (2018) indicate that digital marketing expands reach, increases brand recognition, and enhances customer engagement. As indicated by the authors Ali et al. (2023), Pintado Pasapera et al. (2023), and Zhou et al. (2023) in their research, financial technology drives economic growth, reduces costs, and combats unemployment in micro, small, and medium-sized enterprises. Additionally, it is highlighted that this technology also improves security and trust, which in turn drives competitiveness and efficiency, generating new business opportunities. This shows that financial technologies have a positive impact on business and economic development.

In the global context, innovation models and e-commerce drive sustainable development (Faccia, Le Roux, & Pandey, 2023), while another study indicates that the use of financial technology drives economic growth and reduces unemployment in MSMEs (Hadi et al., 2023). This demonstrates

Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

that the adoption of digital technologies can have a positive impact on sustainability at a global level. Technological innovation drives sustainable business models, especially in times of crisis, promoting values, cooperation, and business ethics (Zheng et al., 2022), highlighting the importance of technological innovation in adapting to challenges and promoting business sustainability.

Machine learning algorithms enhance the prediction of material properties, providing accuracy and efficiency while reducing costs and time (Cruz-Torres, Alvarez-Risco, & Del-Aguila-Arcentales, 2021). On the other hand, Gumbi and Van der Westhuizen (2020) point out that technology influences the development of entrepreneurial self-efficacy among South African youth, resulting in a positive impact of technology on the development of entrepreneurial skills and competencies in the youth. Technological trends drive competitiveness and efficiency in companies through automation, optimization, and market adaptation (Pintado Pasapera et al., 2023), thus adopting technologies to enhance business competitiveness. Similarly, Zhou et al. (2023) drive digital transformation for service trade, improving efficiency and creating new business opportunities, demonstrating that these business models are increasingly enhancing the efficiency of small and medium-sized enterprises.

In the field of digital marketing in e-commerce, the benefits of expanding reach, increasing brand recognition, and improving customer engagement are highlighted (Hadi et al., 2023). Other authors such as Salazar Corrales, Paucar Coque, and Borja Brazales (2017); Salazar-Corrales I, Paucar-Coque II, and Borja-Brazales III (2017); Subramaniam and Islam (2022); Troya Terranova et al. (2019) agree that digitalization helps develop business skills and competencies. In other articles by Frank et al. (2021); Pasquel Cajas, Pasquel Loarte, and Cajas Bravo (2021), it is indicated that combinations of ICT assets enhance revenue, profits, efficiency, and profitability in micro, small, and medium-sized enterprises.

Furthermore, in the research conducted by Cardona Arenas et al. (2022) in the e-commerce sector in Colombia, it is noted that SMEs have been increasing sales and reducing operational costs. Finally, Troya Terranova et al. (2019) mention that digital marketing expands the reach, interaction, and sales of companies, offering visibility, profitability, customer loyalty, and access to audiences.

The importance of convergent innovation in the digital era and its relationship with other forms of innovation has been highlighted by Lee and Trimi (2021) in their study. They point out that additional empirical research is needed to practically apply it, emphasizing the need to explore and better understand how convergent innovation can positively impact organizational performance in the current context of the COVID-19 crisis. On the other hand, Guzikova and Somga Bitchoga (2021) emphasize the positive impact of digitization on the economic development of Africa. Their study demonstrates how digitization has generated employment and improved living conditions on the continent, underscoring the importance of adopting digital technologies and leveraging their benefits to drive economic growth in different regions.

Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

Regarding open innovation, studies conducted by Amankwah-Amoah and Lu (2022), Cataldo, Pino, and McQueen (2020), Georgescu, Peter, and Avasilcai (2022), Cardona Arenas et al. (2022) highlight how this practice promotes the sustainability of business models in e-marketplaces by involving various stakeholders. This suggests that collaboration and openness to external participation can be key elements in driving innovation and growth in the digital environment.

The adoption of IoT (Internet of Things) as a driver of sustainable growth for SMEs is another relevant topic. According to Vodă et al. (2021), IoT transforms the way small and medium-sized enterprises operate, creating new opportunities. This demonstrates how the adoption of emerging technologies can drive business growth and open new avenues for business. Regarding the impact of digital marketing, the study by Muflih and Ratna (2022) highlights how the use of social media as a marketing tool promotes the sustainable growth of SMEs. In contrast, the research conducted by Hadi et al. (2023) and Zhou et al. (2023) points out that technological barriers, digital divide, security concerns, social inequalities, and organizational resistance are limitations for technology adoption in companies.

These limitations demonstrate inequality in access and capacity for organizations to leverage technological innovations. Overcoming these challenges is crucial for a secure, equitable, and prosperous business environment. Therefore, in the research conducted by Faccia, Le Roux, and Pandey (2023), it is indicated that as these new technologies evolve, new limitations arise, although they are not specified. In contrast, Zheng et al. (2022) identified limitations such as secondary data errors and lack of inclusiveness that need improvement through the use of reliable and representative data sources, as well as considering multiple factors and contexts in business research.

In another study by Cruz-Torres, Alvarez-Risco, and Del-Aguila-Arcentales (2021), key considerations are raised when using machine learning algorithms in predicting material properties. These considerations highlight the importance of addressing issues of accuracy, ethics, and responsibility when implementing advanced technologies in the business field. On the other hand, Gumbi and Van der Westhuizen (2020) point out the lack of work experience and the low number of internships in entrepreneurial development as limitations that can affect employees' performance in handling new technologies implemented in SMEs. Similarly, authors Subramaniam and Islam (2022) emphasize the lack of prior studies on the role of digital marketing in e-commerce and student knowledge. These limitations indicate the need for further research in this area to better understand the influence of digital marketing on e-commerce and students' preparedness for the digital business environment.

Mhlongo and Daya (2023) mention various limitations, such as lack of leadership, insufficient resources, poor financial education, inadequate infrastructure, limited technology, and corruption, which contribute to the constant failure of SMEs. Pasquel Cajas, Pasquel Loarte, and Cajas Bravo (2021); Frank et al. (2021) emphasize that companies drive national income and development

through modernization. They recommend the use of technology to enhance productivity and business efficiency. In contrast, other research has identified limitations such as lack of connectivity in rural areas, lack of digital literacy, and concerns regarding security and privacy. These limitations have required companies to analyze and address these challenges when implementing new digital tools to avoid potential issues later on (Cardona Arenas et al., 2022; Troya Terranova et al., 2019). These limitations underscore the need to address the challenges of digitalization.

Salazar Corrales, Paucar Coque, and Borja Brazales (2017) emphasize the need for companies to effectively manage technological dependence, privacy, competition, and adaptation in digital marketing. Considering the research by Amankwah-Amoah and Lu (2022), barriers such as institutional dysfunction, poor infrastructure, lack of expertise, and limited access to regional technologies are identified. These barriers highlight the importance of improving the business environment and strengthening local capacities to foster sustainable business development and the adoption of advanced technologies.

Finally, authors Amalia Georgescu, Marc K Peter, and Silvia Avasilcai (2022) highlight the uncertainties and financial limitations in associative structures, urging for further research and recommendations for SMEs. Overall, the limitations and challenges mentioned by the various authors demonstrate the need for additional research, as well as appropriate business policies and strategies to overcome these barriers. Furthermore, it is essential to address the specific limitations of each business context to drive economic development, innovation, and business sustainability globally.

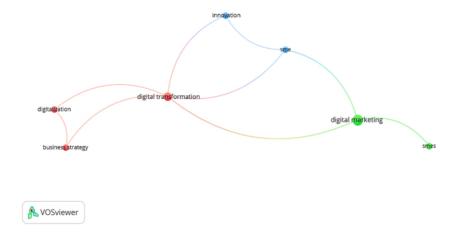


Figure 2: Keyword Co-occurrence

Fuente: Gráfico realizado en VOSviewer.

Based on Figure 2, it can be observed that "digital transformation" and "digital marketing" are the most closely related keywords. These words are the central focus of the research. Additionally, it is

June 2023

Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

evident that factors such as innovation and small and medium-sized enterprises (SMEs) are closely linked to digital transformation. Likewise, digital marketing is also related to SMEs and digital transformation. Another relevant factor influencing this context is business strategies and digitization.

It can be argued that digital innovation plays a fundamental role in improving efficiency, competitiveness, and decision-making in organizations (Lee and Trimi, 2021). The adoption of digital technologies enables businesses to create new business models, reduce costs, and improve people's quality of life. Firstly, research shows that digitalization drives business development in different regions, such as Africa, generating economic growth and job creation. This demonstrates that adopting digital technologies can have a positive impact on the economy and people's lives (Guzikova and Somga Bitchoga, 2021).

Furthermore, financial technologies have proven to be beneficial for micro, small, and medium-sized enterprises by reducing costs, driving economic growth, and improving security and trust in business operations (Pintado Pasapera et al., 2023). These technologies have also enhanced accessibility to electronic markets, increasing visibility and reducing transaction costs (Amankwah-Amoah and Lu, 2022; Cataldo, Pino, and McQueen, 2020; Georgescu, Peter, and Avasilcai, 2022; Cardona Arenas et al., 2022). Digital marketing also plays a crucial role in expanding the reach of businesses, increasing brand awareness, and improving customer engagement. Through social media and other digital tools, companies can customize their marketing strategies, enhance their effectiveness, and gain a competitive advantage (Muflih and Ratna, 2022).

The adoption of the Internet of Things (IoT) has demonstrated benefits for SMEs, such as operational efficiency, cost reduction, and improved customer experience (Vodă et al., 2021). This drives their sustainable growth and provides opportunities for market expansion. Technological innovation has also been associated with improving quality of life, such as in the field of sustainable construction, where critical factors such as technological investment and government strategies have been identified. However, it is also important to recognize and address the limitations and challenges associated with the adoption of digital technologies (Dang et al., 2020). These include technological barriers, the digital divide, security concerns, social inequalities, and organizational resistance. Overcoming these challenges is crucial to ensure an equitable and prosperous business environment.

#### Conclusions

The benefits of digital innovation, digital marketing, digital technologies, and the use of emerging technologies to enhance the efficiency, competitiveness, and sustainability of businesses are evident. However, there are also identified limitations such as technological barriers, social inequalities, lack of infrastructure, and organizational resistance that need to be overcome to fully leverage the benefits of technology in the business environment.

June, 2023 Volume: 8, No: 4, pp. 1534-1548 ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

It is important to consider that the aforementioned limitations also highlight inequality in access and capacity for organizations to fully leverage technological innovations. Therefore, it is essential to work towards reducing these disparities, promoting equal opportunities, and providing support to businesses facing difficulties in adopting and adapting to digitalization. By addressing these limitations and inequalities, we can maximize the benefits of digital business transformation and foster a more inclusive and competitive business environment.

It is crucial to implement digitalization in business in order to improve the competitiveness of small and medium-sized enterprises, enabling them to expand their activities. However, to fully harness the potential of these new technologies, it is necessary to address two fundamental aspects. Firstly, the security of digital systems must be strengthened, ensuring the protection of sensitive data and preventing potential security breaches. Additionally, it is important to educate personnel on the proper use of these technologies, providing them with training to make the most of the available digital tools.

#### References

- Absah, Y.; Muchtar, Y.C.; Qamariah, I. 2018. "Improving Performance of SMEs through Social Media Marketing Training". En: Proceedings of the 1st Economics and Business International Conference 2017 (EBIC 2017) (pp. 279–293). Paris, France: Atlantis Press. https://doi.org/10.2991/ebic-17.2018.99.
- Ali, H.S.; Jia, F.; Lou, Z.; Xie, J. 2023. "Effect of blockchain technology initiatives on firms' market value". En: Financial Innovation, 9(1), 48. https://doi.org/10.1186/s40854-023-00456-8.
- Amankwah-Amoah, J.; Lu, Y. 2022. "Harnessing AI for business development: a review of drivers and challenges in Africa". En: Production Planning & Control, 1–10. https://doi.org/10.1080/09537287.2022.2069049.
- Bejlegaard, M.; Sarivan, I.M.; Waehrens, B.V. 2021. "The influence of digital technologies on supply chain coordination strategies". En: Journal of Global Operations and Strategic Sourcing, 14(4), 636–658. Emerald Group Holdings Ltd. https://doi.org/10.1108/JGOSS-11-2019-0063.
- Cano, J.A.; Londoño-Pineda, A.; Castro, M.F.; Paz, H.B.; Rodas, C.; Arias, T. 2022. "A Bibliometric Analysis and Systematic Review on E-Marketplaces, Open Innovation, and Sustainability". En: Sustainability (Switzerland), 14(9). MDPI. https://doi.org/10.3390/SU14095456.
- Cardona Arenas, C.D.; Quintero Renaud, S.; Mora Quintero, M.C.; Castro Cardona, J. 2022. "Influencia del comercio electrónico en el desempeño financiero de las pymes en Manizales, Colombia". En: Innovar, 32(84). https://doi.org/10.15446/innovar.v32n84.100594.
- Cataldo, A.; Pino, G.; McQueen, R.J. 2020. "Size matters: the impact of combinations of ICT assets on the performance of Chilean micro, small and medium enterprises". En: Information Technology for Development, 26(2), 292–315. https://doi.org/10.1080/02681102.2019.1684870.
- Cruz-Torres, W.; Alvarez-Risco, A.; Del-Aguila-Arcentales, S. 2021. "Impact of Enterprise Resource Planning (ERP) Implementation on Performance of an Education Enterprise: A Structural Equation Modeling (SEM)". En: Studies in Business and Economics, 16(2), 37–52. https://doi.org/10.2478/sbe-2021-0023.
- Dang, P.; Niu, Z.; Gao, S.; Hou, L.; Zhang, G. 2020. "Critical factors influencing the sustainable construction capability in prefabrication of chinese construction enterprises". En: Sustainability (Switzerland), 12(21), 1–22. MDPI. https://doi.org/10.3390/SU12218996.
- Faccia, A.; Le Roux, C.L.; Pandey, V. 2023. "Innovation and E-Commerce Models, the Technology Catalysts for Sustainable Development: The Emirate of Dubai Case Study". En: Sustainability, 15(4), 3419.

- https://doi.org/10.3390/su15043419.
- Frank, A.; Cajas, P.; Loarte, L.P.; Verónica, T.; Bravo, C.; Olga, A.; Salazar, R.; Alberto, M.; Paredes, M. 2021. "Aplicación de las Tecnologías de Información y Comunicación en el desarrollo de las micro y pequeñas empresas". En: Revista Conrado, 17(80), 41–47. Consultado el 15 de mayo de 2023: https://conrado.ucf.edu.cu/index.php/conrado/article/view/1808.
- Georgescu, A.; Peter, M.K.; Avasilcai, S. 2022. "A business ecosystem framework for SME development through associative and non-associative business structures in the digital age". En: Cogent Business & Management, 9(1). https://doi.org/10.1080/23311975.2022.2143310.
- Gumbi, N.; Van der Westhuizen, T. 2020. "Youth entrepreneurial self-efficacy towards technology for online business development". En: European Conference on Innovation and Entrepreneurship.
- Guzikova, L.; Somga Bitchoga, N. 2021. "Digitalization as a means of African countries economic development sustainability". En: ACM International Conference Proceeding Series, 56–66. Association for Computing Machinery. https://doi.org/10.1145/3527049.3527132.
- Hadi, D.P.; Adi, P.H.; Arintoko; Ahmad, A.A. 2023. "The Impact of the Omnibus Low Cipta Kerja on the Sustainability of MSMEs and Economic Growth by Applying the Canvas Model Business Method and the Use of Financial Technology, Especially Crowdfunding and Microfinance". En: International Journal of Sustainable Development and Planning, 18(2), 505–513. https://doi.org/10.18280/ijsdp.180219.
- Lee, S.M.; Trimi, S. 2021. "Convergence innovation in the digital age and in the COVID-19 pandemic crisis".

  En: Journal of Business Research, 123, 14–22. Elsevier. https://doi.org/10.1016/J.JBUSRES.2020.09.041.
- Manninen, A. 2021. "Supporting innovation and growth of microenterprises in peripheral region". En: Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE, 1174–1181. Academic Conferences and Publishing International Limited. https://doi.org/10.34190/EIE.21.062.
- Medina Chicaiza, R.P.; Chango Guanoluisa, M.; Corella Cobos, M.; Guizado Toscano, E.D. 2022. "Transformación digital en las empresas". En: Revista Ciencia e Investigación, 7(1), 51. Universidad Técnica de Babahoyo. https://doi.org/10.5281/zenodo.7726439.
- Melović, B.; Jocović, M.; Dabić, M.; Vulić, T.B.; Dudic, B. 2020. "The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in Montenegro". En: Technology in Society, 63. Elsevier Ltd. https://doi.org/10.1016/J.TECHSOC.2020.101425.
- Mhlongo, T.; Daya, P. 2023. "Challenges faced by small, medium and micro enterprises in Gauteng: A case for entrepreneurial leadership as an essential tool for success". En: The Southern African Journal of Entrepreneurship and Small Business Management, 15(1). https://doi.org/10.4102/sajesbm.v15i1.591.
- Misko, O.N.; Smirnov, A. V.; Kotelkin, Y. V. 2022. "Issues of Digital Business Transformation in the Current Context". En: Lecture Notes in Networks and Systems, 380 LNNS, 464–470. Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-030-94245-8\_63/COVER.
- Muflih, M.; Ratna, S. 2022. "Business development and optimization of smes' growth through digital marketing". En: International Journal of eBusiness and eGovernment Studies, 14(2), 307–328. Social Sciences Research Society. https://doi.org/10.34109/ijebeg. 202214135.
- Núñez Cudriz, E.C.; Miranda Corrales, J.D. 2020. "Marketing digital como un elemento de apoyo estratégico a las organizaciones". En: Cuadernos Latinoamericanos de Administración, 16(30), 1–14. https://doi.org/10.18270/cuaderlam.v16i30.2915.
- Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; Chou, R.; Glanville, J.; Grimshaw, J.M.; Hróbjartsson, A.; Lalu, M.M.; Li, T.; Loder, E.W.; Mayo-Wilson, E.; McDonald, S.; McGuinness, L.A.; Stewart, L.A.; Thomas, J.; Tricco, A.C.; Welch, V.A.; Whiting, P.; Moher, D. 2021. "Declaración PRISMA 2020: una guía actualizada para la publicación de revisiones sistemáticas". En: Revista Española de

June, 2023 Volume: 8, No: 4, pp. 1534-1548

ISSN: 2059-6588 (Print) | ISSN 2059-6596 (Online)

- Cardiología, 74(9), 790–799. Elsevier. https://doi.org/10.1016/J.RECESP.2021.06.016.
- Pasquel Cajas, A.F.; Pasquel Loarte, L.; Cajas Bravo, T.V. 2021. "Application of information and communication technologies in the development of Micro and Small enterprises". En: Conrado, 17(80).
- Peter, M.K.; Kraft, C.; Lindeque, J. 2020. "Strategic action fields of digital transformation: An exploration of the strategic action fields of Swiss SMEs and large enterprises". En: Journal of Strategy and Management, 13(1), 160–180. Emerald Group Holdings Ltd. https://doi.org/10.1108/JSMA-05-2019-0070.
- Pintado Pasapera, E.A.; Durand De La O., O.K.; Olivera Villegas, R.; Valenzuela Muñoz, A. 2023. "Acción gerencial y nuevas tendencias tecnológicas en pymes peruanas". En: Revista Venezolana de Gerencia, 28(102), 797–811. https://doi.org/10.52080/rvgluz.28.102.22.
- Quenum, A.; Thorisson, H.; Wu, D.; Lambert, J.H. 2021. "Resilience of business strategy to emergent and future conditions". En: Journal of Risk Research, 24(7), 870–888. Routledge. https://doi.org/10.1080/13669877.2018.1485172.
- Salazar Corrales, A.M.; Paucar Coque, L.M.; Borja Brazales, Y.P. 2017. "Digital marketing and its influence on business management". En: Dominio de las Ciencias, 3(4), 1161–1171.
- Salazar-Corrales I, A.M.; Paucar-Coque II, L.M.; Borja-Brazales III, Y.P. 2017. "El marketing digital y su influencia en la administración empresarial". En: Dominio de las Ciencias, 3(4), 1161–1171. Polo de Capacitación, Investigación y Publicación (POCAIP). https://doi.org/10.23857/dom.cien.pocaip.2017.3.4.jul.
- Sheremetyeva, E.N.; Gorshkova, L.A.; Mitropolskaya-Rodionova, N. V. 2022. "Digital Marketing Transformation: Trends and Realities". En: Lecture Notes in Networks and Systems, 304, 497–504. Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-030-83175-2 62.
- Subramaniam, P.; Islam, J. 2022. "Innovation and the impact of technology on women entrepreneurs in small and medium enterprises in Singapore". En: World Applied Sciences Journal, 238–246.
- Troya Terranova, K.T.; Camacho Villota, J.; Encalada Tenorio, G.; Sandoya Mayorga, L. 2019. "El marketing digital en las empresas de Ecuador". En: Congreso Internacional de Emprendimiento e Innovación Social EDI 2019, 4(1), 1–10.
- Vodă, A.D.S.; Tudor, A.I.M.; Chiţu, I.B.; Dovleac, L.; Brătucu, G. 2021. "IoT technologies as instruments for SMEs' innovation and sustainable growth". En: Sustainability (Switzerland), 13(11). MDPI AG. https://doi.org/10.3390/SU13116357.
- Wang, Q. 2022. "Planning for an Inclusive Entrepreneurial Ecosystem: COVID-19 and Business Resilience in Underserved Communities". En: Journal of the American Planning Association. Routledge. https://doi.org/10.1080/01944363.2022.2105740.
- Yu, F.; Du, H.; Li, X.; Cao, J. 2023. "Enterprise digitalization, business strategy and subsidy allocation: Evidence of the signaling effect". En: Technological Forecasting and Social Change, 190. Elsevier Inc. https://doi.org/10.1016/J.TECHFORE.2023.122472.
- Zheng, L.; Dong, Y.; Chen, J.; Li, Y.; Li, W.; Su, M. 2022. "Impact of Crisis on Sustainable Business Model Innovation—The Role of Technology Innovation". En: Sustainability, 14(18), 11596. https://doi.org/10.3390/su141811596.
- Zhou, L.; Xia, Q.; Sun, H.; Zhang, L.; Jin, X. 2023. "The Role of Digital Transformation in High-Quality Development of the Services Trade". En: Sustainability, 15(5), 4014. https://doi.org/10.3390/su15054014.