

Digital Entrepreneurship: Factors influencing Digital Technology Adoption in Businesses

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Abstract—The purpose of this research is to catalogue and examine the factors that influence business decisions to use digital technology. As a result, digital entrepreneurship is becoming more popular as the pinnacle and most current trend in the evolution of entrepreneurship. The need for conceptualizations in the sector is much required, since there has been less effort to analyse the literature and research trends in digital entrepreneurship. Consequently, this research is associated with factors influencing entrepreneurial journey through digital transformation. The study discussed on digitalization drivers by emphasizing the significance of organizational factors, which our results reveal to be more influential than technology and environmental drivers. The study's identified factors of digital technology adoption offer a theoretical foundation for future research on entrepreneurial intentions to use digital technologies. Researchers in the future may look into the resources and skills needed to successfully implement digital technology.

Index Terms—Digital, Factors, Entrepreneurship, Technology

THEORETICAL UNDERPINNINGS

Entrepreneurship plays a crucial role in the economic landscape, while digital technology serves as a stimulus for innovation among entrepreneurs. Digital technology has empowered entrepreneurs to use strategic methods for the development of their enterprises. Digital entrepreneurship tightly links entrepreneurs across many platforms and offers several possibilities. Research on the obstacles, possibilities, and determinants of success in digital entrepreneurship has been sparse (Kraus et al., 2017). New opportunities for entrepreneurs to access potentially lucrative worldwide markets have arisen with the advent of this digital notion in businesses. As the world's economy slowly recover, many industries and business leaders are looking to digital entrepreneurship as a way to spur employment growth. In addition to paving the way for new businesses to spring up, this creative use of technology is reshaping established sectors in the market.

The idea of digital entrepreneurship is receiving a lot of attention from scholars, industry professionals, and government officials. Thanks to digital technology, a welcoming and conducive atmosphere has been created for new endeavours. This has improved competitiveness, attracted more investment, developed markets, and created more employment, all of which have contributed to narrowing the gap between developed and developing economies (Kraus et al., 2017). A lot of poor countries are trying to figure out how to encourage entrepreneurship in digital economies by enhancing their programs for skill and technique development, legislative frameworks, and funding initiatives. For workers in outlying regions, this helps level the playing field in terms of access to information. Creating a competent workforce in today's globally linked and competitive economy is dependent on adopting innovative digital technology (Rippa & Secundo, 2019). Entrepreneurs' market orientation and abilities also play a role in this digital technology partnership.

The similar argument is advanced by Zhichao et al. (2019), who claim that startups assist underdeveloped countries thrive and create jobs. Many nations are currently using this newly developed idea as a means of economic growth. A few of the pieces have narrowed the scope of digital entrepreneurship to focus just on new businesses.

The systematic review incorporated in the study Nobanee and Dilshad (2020) provide light on the long-term aims of digital entrepreneurs and the strategic maneuvers they make to attain them. Researchers could use the results of this systematic review to pave the way for new avenues of inquiry. Entrepreneurs are now able to launch more sustainable projects thanks to the new digital endeavors made possible by technological improvements. There is a lack of literature on the idea, practical applications, and potential future study topics related to digital entrepreneurship, despite the topic's relevance and timeliness. Academic studies are now attempting to pinpoint the conditions that can foster digital entrepreneurship, which in turn informs public policy and corporate strategy (Sahut et al., 2019). In the long run, this may spur economic development and increase the number of jobs available in the highly competitive global market.

Conversely, a research report by Pappas et al. (2018) and a study by Rippa and Secundo (2019) examined this subject across many areas. Likewise, the authors examined the influence of women's engagement via digital technology on economic production levels. Rippa and Secundo (2019) emphasized in their research that universities significantly contribute to economic growth, innovation, and technology. Research programs at universities provide information for commercial applications and income production, leading to the emergence of the phrase "entrepreneurial university" (Rippa and Secundo, 2019).

Through the use of entrepreneurial processes and results, these digital technologies alter organizational processes and revolutionize methods of coping with market uncertainty. The term "digital entrepreneurship" describes a new trend in which people and organizations from many parts of society and the economy are moving away from traditional approaches and toward more cutting-edge ones. Any economy can only foster an entrepreneurial spirit if the government, corporations, nonprofits, and educational institutions work together to foster an inventive environment that encourages and rewards entrepreneurial behavior, methods, and culture.

In order to survive in today's highly competitive global market, many companies have rethought their long-standing organizational models, internal procedures, and overall strategy in light of digital technology. Moreover, it has altered the nature of employment in the world's most industrialized nations. Research conducted by Hua et al. (2016) delves into the topic of how new endeavours face several hurdles in today's complex business ecosystem, which might hinder their ability to detect and react to market shifts. Companies and other stakeholders work together to foster an innovation-driven environment in an entrepreneurial ecosystem.

The digital transformation aims to increase society welfare, productivity, and wealth creation via the use of disruptive technologies. The supply of high-quality services in the digital age is a major concern for many national and international organizations and governments (Abdellah et al., 2022; Ebert & Duarte, 2018; Hakizimana & Muathe, 2023).

Continual entrepreneurship and corporate vitality have been encouraged by digital transformation, particularly in businesses that rely on technology. These businesses have restructured such that they may run in two periods at once. Both the conventional and disruptive modes are in use; the former monitors established businesses and operations, while the latter searches for ways to break into untapped markets and provide novel goods and services. Disruption is currently happening in the software industry as a result of developments that meet customers' future performance needs and help market leaders stay ahead of the competition. According to research (Abdellah et al., 2022; Hakizimana & Muathe, 2023), these businesses are cautious about putting their cash flow at risk.

Digital transformation facilitates the emergence of new business models, industry cooperation, and technical innovation. Some individuals are only expending effort without progress as the future approaches. According to a comment made by tech guru Herman Kahn many years ago, we should exercise caution since everyone can learn from the past. Brunetti et al. (2020) and Hakizimana and Muathe (2023) both stress the need of thinking forward.

Cultivating psychologically based entrepreneurial abilities is crucial in higher education for entrepreneurship. If we want to see more entrepreneurs with degrees, we need to change the way schools operate. Education about, for, and inside a business are the three types of entrepreneurial education that Moreland (2006) outlines. As the authors Hakizimana and Muathe (2023) put it, "learning 'for'" entrepreneurial skills should replace "transmission models of teaching (learning 'about')" in the field.

In 2011, Ribble If a student owns a dormant business, they may still do bench research on potential new ventures to launch or revive their dormant company. One way to study entrepreneurship is in an active firm. Before officially establishing their company, some students like to plan it out in great detail over a long period of time. Since they have had to close the sales and build the company's network even though the official paperwork is still pending, they have been learning "in business" even though it isn't officially acknowledged as such. The number and diversity of entrepreneurship courses offered by university business schools and specialist entrepreneurship centers are at an all-time high (Maritz et al., 2021; Hakizimana & Muathe, 2023).

Business environment: when a new endeavour is operated, it anticipates the organizational choices to which extend it accept the technological innovations available in its environment. Innovation emphasizes the significance of the external environment, asserting that environmental shifts and uncertainties challenge conventional business models and serve as crucial catalysts for innovation. The business environment encompasses external influences and support for adoption, including industry characteristics, market structure, competitiveness, government regulation, and corporate infrastructure (Yang, Fu & Zhang, 2021; Wang, Fang, Zhang, 2022; Sherer, Meyerhoefer & Peng, 2016).

Disruptive digital competition and technology, as well as shifting customer behavior, are driving paradigm shifts in this area. The technology adoption cites the benefits of collaborating with business partners. For many organizations adopting digital technology are keeping up with technical improvements and maintaining tight interaction with external partners. The threat of new entrants is another external factor (Chen, Preston & Swink, 2015; Warner & Wäger, 2019).

One way for new business endeavors to become more competitive is to use digital technology. In fact, the majority of businesses follow the lead of their rivals when it comes to digital technology adoption. This is because most businesses assume that digital technology is the industry standard. In an effort to remain competitive, many companies have been investigating the possibility of using digital management systems that are both quicker and more accurate to support lean and agile operations. In a similar vein, prior research has shown that whole businesses, such as those dealing with artificial intelligence and big data, may be fostered by a favorable national regulatory framework. Firms are encouraged to adopt new digital technologies by the continuous government assistance (Chen, Li & Chen, 2021; Chen, Preston & Swink, 2015).

Organizational Factors and the Adoption of Digital Technologies: As an example, financial resources, human skills and competences, and support from upper management are all examples of informal resources that might strengthen the adoption of technology. There are both strategic and operational reasons to utilize digital technologies. As part of their fundamental business focus, several SMEs are actively establishing digital strategies. Adopting digital technology, in their view, may set in motion a chain reaction of innovations, some modest and others revolutionary (Chen, Li & Chen, 2021; Yang, Fu & Zhang, 2021).

The majority of digital technology adoption is also prompted by issues with internal operations. Companies are under more pressure than ever to improve their communication with internal and external stakeholders, uncover strategic information, reduce operational expenses, and acquire new business insights. In addition, digital transformation requires certain organizational resources for the purpose of effective digital adoption. A company's choice to use digital technologies may be impacted by factors such as technological competences, digital resources, backing from upper management, and organizational structure. There seems to be a connection between technical structure and strategy. Further, it has been found a substantial positive relationship between the extent of strategy change and the stage of digital technologies adoption. A key factor in the deployment of digital technology is also the major support to businesses (Van Zeebroeck, Kretschmer & Bughin, 2021; Verhoef, Broekhuizen, Bart, et. al., (2021).

Other, major factors in the adoption choice include a supportive attitude and policies, the distribution of financial resources, and the presence of a strategic plan for digitization activities. Also, internal opposition might arise if the adoption process necessitates modifications to business responsibilities and procedures. Indeed, according to Warner and Wäger (2019), significant internal obstacles to digital transformation include inflexible strategic goals, excessive centralization, and reluctance to adapt. There is evidence that management buy-in for privacy and security in the digital sphere is a significant organizational component in the use of digital technologies by businesses (Ghobakhloo, 2020; Kamble, Gunasekaran & Gawankar, 2018).

Adoption of Digital Technologies: When we talk about the technological context, we're talking about both the internal workings of the business and the external technologies that are accessible to it. More relevant technologies, including blockchain, artificial intelligence, machine learning, cloud computing, or social media apps, are available via the digital transformation. The perceived value and advantages of digital technologies determine their adoption. Companies will only implement cutting-edge IT systems if they believe these systems will improve their operations or open up new markets for their products or services (Sun, Hall & Cegielski, 2020).

Cloud computing will likely be adopted when its advantages outweigh those of current techniques and procedures. When it comes to the adoption stage, the perceived benefits are all about the benefits that the business has already experienced and the value that digital technologies that have been installed have brought. Digital technology adoption and digital transformation are driven by a number of factors, including anticipated potential benefits, the presence of an IT infrastructure, and historical exposure to digital technology. From this vantage point, it is clear that cybersecurity and digitalization maturity impact SMEs' choices to embrace digital technology. The term "digital maturity" is used to describe a company's level of preparedness to use digital tools and resources to improve its operations, employee engagement, and production patterns. When companies reach a certain level of digital maturity, they are able to use digital technology to their advantage and reimagine their business models. The perceived value of digital technology adoption may be enhanced with an integrated cybersecurity solution that guarantees the safety, security, and dependability of communications (Ghobakhloo, 2020; Mahroof, 2019). From a similar vantage point, Neumeyer, Santos and Morris (2020) emphasized the importance of technological literacy in encouraging the use of technology in the service of innovation and entrepreneurship.

In general, digital technologies need a substantial amount of associated technological resources in order to realize their maximum potential in the business. In order to facilitate the adoption of new technological innovations, SMEs with more technological resources might provide a platform. The current state of an organization's information technology infrastructure, including hardware, software, and connections, is known as its technological resources. A company's ability to swiftly reconfigure or deploy new digital technology resources is influenced by its technology resources, which comprise human IT resources and IT-enabled intangibles (Omrani, Rejeb, Maalaoui, Dabic, & Kraus, 2022).

Accessibility of digital instruments: digital technologies like Cloud computing, artificial intelligence (e.g., machine learning or technologies that identify objects or people), robotics, smart devices (e.g., smart sensors, smart thermostats, etc.), big data analytics (e.g., data mining and predictive analysis), high-speed infrastructure, blockchain, and smart devices are major parts of the digital technology (Omrani, Rejeb, Maalaoui, Dabić, & Kraus, 2022). In terms of innovation, whether or not the company has made any new product or service offerings in the previous year. A variety of innovations can be embraced, including but not limited to: new or enhanced products or services for sale, new or improved methods of production, new management structures or business models, new approaches to marketing and sales, innovations that benefit the environment (such as those that enhance energy or resource efficiency), innovations that aim to better society, and so on (Omrani, Rejeb, Maalaoui, Dabić, & Kraus, 2022).

CONCLUSIONS

The present study is the comprehension of the factors influencing entrepreneurial journey through digital transformation which has constraint because of comprehensive research that addresses concerns outside contextual imperatives (i.e., economic, technical, legal, and financial infrastructure). The study examined several categories of factors enabled us to address the disjointed insights offered by prior studies that concentrated on isolated facets of the adoption decision. The study discussed on digitalization drivers by emphasizing the significance of organizational factors, which our results reveal to be more influential than technology and

environmental drivers. The study's identified factors of digital technology adoption offer a theoretical foundation for future research on entrepreneurial intentions to use digital technologies. Researchers in the future may look into the resources and skills needed to successfully implement digital technology. Additionally, this study's identified factors of digital technology adoption offer a theoretical foundation for future research on entrepreneurial intentions to use digital technologies. Researchers in the future may look into the resources and skills needed to successfully implement digital technology by using ideas like the resource-based perspective and dynamic capabilities. The study concludes that further research is needed to determine the extent to which corporate social responsibility impacts the use of digital technologies by organizations.

REFERENCES

- [1] Abdellah, W. R., Kim, J. G., Hassan, M. M., & Ali, M. A. (2022). The key challenges towards the effective implementation of digital transformation in the mining industry. *Geosystem Engineering*, 25(1-2), 44-52.
- [2] Brunetti, F., Matt, D. T., Bonfanti, A., De Longhi, A., Pedrini, G., & Orzes, G. (2020). Digital transformation challenges: strategies emerging from a multi-stakeholder approach. *The TQM Journal*, 32(4), 697-724.
- [3] Chen, D. Q., Preston, D. S., & Swink, M. (2015). How the use of big data analytics affects value creation in supply chain management. *Journal of Management Information Systems*, 32(4), 4-39.
- [4] Chen, H., Li, L., & Chen, Y. (2021). Explore success factors that impact artificial intelligence adoption on telecom industry in China. *Journal of Management Analytics*, 8(1), 36-68.
- [5] Ebert, C., & Duarte, C. H. C. (2018). Digital transformation. *IEEE Software*, 35(4), 16-21.
- [6] Ghobakhloo, M. (2020). Determinants of information and digital technology implementation for smart manufacturing. *International Journal of Production Research*, 58(8), 2384-2405.
- [7] Hu, H., Huang, T., Zeng, Q., & Zhang, S. (2016). The role of institutional entrepreneurship in building digital ecosystem: A case study of Red Collar Group (RCG). *International Journal of Information Management*, 36(3), 496-499.
- [8] Kamble, S. S., Gunasekaran, A., & Gawankar, S. A. (2018). Sustainable Industry 4.0 framework: A systematic literature review identifying the current trends and future perspectives. *Process Safety and Environmental Protection*, 117, 408-425.
- [9] Kraus, S., Roig-Tierno, N., & Bouncken, R. B. (2019). Digital innovation and venturing: an introduction into the digitalization of entrepreneurship. *Review of Managerial Science*, 13(3), 519-528.
- [10] Mahroof, K. (2019). A human-centric perspective exploring the readiness towards smart warehousing: The case of a large retail distribution warehouse. *International Journal of Information Management*, 45, 176-190.
- [11] Maritz, A., Jones, C., Foley, D., De Klerk, S., Eager, B., & Nguyen, Q. (2021). Entrepreneurship education in Australia. In *Annals of entrepreneurship education and pedagogy-2021* (pp. 208-226). Edward Elgar Publishing.
- [12] Moreland, N. (2005). Learning & Employability. *Series Two: Work-related Learning in Higher Education*, York: The Higher Education Academy.
- [13] Neumeyer, X., Santos, S. C., & Morris, M. H. (2020). Overcoming barriers to technology adoption when fostering entrepreneurship among the poor: The role of technology and digital literacy. *IEEE Transactions on Engineering Management*, 68(6), 1605-1618.
- [14] Nobanee, H., & Dilshad, M. N. (2020). Digital entrepreneurship: Concepts, applications, and future research agenda. *Journal of Critical Reviews*, 7(19).
- [15] Omrani, N., Rejeb, N., Maalaoui, A., Dabić, M., & Kraus, S. (2022). Drivers of digital transformation in SMEs. *IEEE Transactions on Engineering Management*, 71, 5030-5043.
- [16] Pappas, M. A., Drigas, A. S., Papagerasimou, Y., Dimitriou, H., Katsanou, N., Papakonstantinou, S., & Karabatzaki, Z. (2018). Female entrepreneurship and employability in the digital era: The case of Greece. *Journal of Open Innovation: Technology, Market, and Complexity*, 4(2), 15.
- [17] Ribble, M., & Bailey, G. (2011). Nine elements of digital citizenship. *Digital citizenship: Using technology appropriately*.
- [18] Ripa, P., & Secundo, G. (2019). Digital academic entrepreneurship: The potential of digital technologies on academic entrepreneurship. *Technological Forecasting and Social Change*, 146, 900-911.
- [19] Sahut, J. M., Iandoli, L., & Teulon, F. (2021). The age of digital entrepreneurship. *Small Business Economics*, 56(3), 1159-1169.
- [20] Sherer, S. A., Meyerhoefer, C. D., & Peng, L. (2016). Applying institutional theory to the adoption of electronic health records in the US. *Information & Management*, 53(5), 570-580.
- [21] Sun, S., Hall, D. J., & Cegielski, C. G. (2020). Organizational intention to adopt big data in the B2B context: An integrated view. *Industrial Marketing Management*, 86, 109-121.
- [22] Van Zeebroeck, N., Kretschmer, T., & Bughin, J. (2021). Digital "is" strategy: The role of digital technology adoption in strategy renewal. *IEEE Transactions on Engineering Management*, 70(9), 3183-3197.
- [23] Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of business research*, 122, 889-901.
- [24] Wang, C., Fang, Y., & Zhang, C. (2022). Mechanism and countermeasures of "The Innovator's Dilemma" in business model. *Journal of Innovation & Knowledge*, 7(2), 100169.
- [25] Warner, K. S., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long range planning*, 52(3), 326-349.
- [26] Yang, M., Fu, M., & Zhang, Z. (2021). The adoption of digital technologies in supply chains: Drivers, process and impact. *Technological Forecasting and Social Change*, 169, 120795.
- [27] Yin, Z., Gong, X., Guo, P., & Wu, T. (2019). What drives entrepreneurship in digital economy? Evidence from China. *Economic Modelling*, 82, 66-73.