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RESEARCH ARTICLE

Examining the Digital Transformation and Digital Entrepreneurship: A PRISMA Based Systematic Review

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ABSTRACT

This study aspires to determine the factors affecting digital transformation and digital entrepreneurs. Furthermore, the study identifies the digital transformation strategies and technological platforms that contribute to the creation of value in digital entrepreneurship. The study employs a qualitative methodology to gather secondary data, as entrepreneurs in developing economies have yet to fully utilize emerging technologies. The current study employed the PRISMA standards, specifically developed for conducting systematic reviews and meta-analyses of observational data. Researchers conducted research on publications, including global databases such as Scopus, PubMed, Web of Sciences, DOAJ, Direct Science, etc., to identify 1170 publications. This study employed a search technique that incorporated relevant key terms related to the primary focus of the investigation, including digital transformation, digital entrepreneurs, PRISMA, SME's, entrepreneurial work, and the impact of digital transformation. The technique also identified 185 additional papers for inclusion in the study. According to the findings of the study, numerous scholars define technology entrepreneurship as the intersection of entrepreneurial activities and technological innovation. Entrepreneurs may identify and capitalize on technological opportunities by starting new ventures. This study focuses on the potential for digital transformation in entrepreneurship, a paradigm shift brought about by the integration of digital technology in all aspects of entrepreneurial endeavors. This research also elucidates the process of digital transformation in entrepreneurship, highlighting its various phases. Furthermore, this paper offers a deeper understanding of the factors influencing technology-driven entrepreneurship as well as the influence of technology on producers, consumers, and policymakers, all of which significantly contribute to a nation's economic advancement.

INTRODUCTION

Digital transformation is increasingly an essential influencer within the global economy, where governments of different nations are giving significant attention to digital infrastructure and service development (Dąbrowska et al., 2022). All these developments indeed will have a profound impact on international trade and on the countries which can take advantage of this whole thing it reshaped by digital transformation with a competitive edge (Mani, 2019). Nowadays, it has a huge impact on consumer behavior and market demand that influenced the very process of interaction between

business organizations and their target audience (Taheri et al., 2024). These days, consumers are more connected, informed and empowered than ever before (Kang & Hwang, 2022).

Khurana et al. (2022) stated that technology has rapidly progressed, it brought substantial change in the business environment that ultimately caused entrepreneurs to evolve and convert their businesses drastically for effortless survival of future trends (Akter et al., 2023a). Today, it is more important than ever to foster entrepreneurial activity that promotes innovation and growth in the context of a booming digital economy (Abbas & Myeong, 2024). Digital transformation meets entrepreneurship along with the strategies, tips and tricks that any entrepreneur (across industries) who wants to jump on this wave can consider (Taheri et al., 2024).

Organization will be exploring how digital transformation has been affecting different areas of entrepreneurial practices (Bhuiyan et al., 2024) such as business models, customer engagement and operational efficiency (Fernandes & Burcharth, 2024). Researchers are going to take a deeper dive into that fascinating digital transformation and its impact on the entrepreneurial way of doing things (Thamrongthanakit, 2023). Entrepreneurs do not really have any other choice but to undergo digital transformation because of the many benefits and opportunities it brings. Kang and Hwang (2022) conducted a study where entrepreneurs can also refine their processes to the maximum and develop a good customer experience through digital transformation (Jia et al., 2024). Furthermore, digital transformation allows entrepreneurs to enter into new markets and attract more clients by using online platform and digital marketing solution (Chen et al., 2024).

The various forms of government policies for creating successful ecosystems in startups and entrepreneurship include providing financial and advisory support, regulatory incentives as well as establishing an enabling infrastructure and network among others (Addy et al., 2024). Many governments all over the world have invested a lot to promote an active startup culture, by laying foundation and inception of incubators, accelerator (Islam & Bhuiyan, 2022). Asides these physical spaces, government initiatives have been established to provide mentorship and other vital supports for potential entrepreneurs (Addy et al., 2024).

The primary ambition of investing in educational programs is to provide people with all the necessary skills and knowledge, which they may later apply to be successful in a highly competitive business environment (Kargas et al., 2023). In addition, governments have given rise to powerful mechanisms for the exchange of ideas, resources and knowledge among private partnerships and networks (Clemente-Almendros et al., 2024). Startup and entrepreneur networks also play a key role in giving startups and entrepreneurs access to new markets, new customer segments, as well as potential partners (Jia et al., 2024). Not only do they provide excellent chances to reach out to seasoned mentors, as well as potential investors (Bhuiyan, 2019), but also the entrepreneurial environment is more exposed to lots of opportunities when it comes to development and creativity (Abbas & Myeong, 2024).

With constantly changing digital ecosystem, the combination of digital transformation and entrepreneurship has emerged as a key area of importance for people and businesses alike (Nair et al., 2024). Digital transformation, thus allows entrepreneurs to use innovative technology for operational efficiency and growth in numerous areas of new opportunities for the generations (Addy et al., 2024). Entrepreneurs can take advantage of these digital tools and approaches to tap into changing market trends, improve customer interactions and achieve long-term business growth (Clemente-Almendros et al., 2024). So while the digital transformation is a good launching point for modern entrepreneurship, it's the symbiotic relationship digital transformation for business (Fernandes & Burcharth, 2024).

Jia et al. stated (2024) that inspiring digital change are propelling a startup in an emerging nation is vital to winning in the present consistently developing global climate. Using digital technologies can improve their operational effectiveness and strategic decision making while promoting a culture of innovation, agility and competitiveness (Chen et al., 2024). An increasing in-demand topic among entrepreneurs looking to tap into mainstay industries within emerging markets, the development of a comprehensive digital transformation roadmap offers significant opportunities for sustainable growth and market resilience (Addy et al., 2024). Leveraging the latest digital technologies and platforms helps businesses to automate their operations, target new markets that were previously out of reach, as well as seize newly arising opportunities (Jia et al., 2024). Entrepreneurship combined with digital transformation accelerates economic development and also fosters a culture of creativity, innovation and growth across developing economies' entrepreneurial ecosystems (Abbas & Myeong, 2024).

Research Gaps

In addition, this gap in the literature acquires more significance in the light of digital transformation, which involves significant changes and working practices as well as that of entrepreneurs (Scarmozzino et al., 2017). During the past couple of decades, most of people's lives and work have migrated to the online arena (Abbas & Myeong, 2024). Researchers studied how modern people do things nowadays, then diving into the digital components would not hurt at all. Newly founded technologies like artificial intelligence, the Internet of Things (IoT) (Jia et al., 2024) and big data not only experience influenced the way patterns in which new organization occurs (Bhuiyan et al., 2024) and how the capable enterprise based by (Luftman et al., 1993), but likewise redeveloped vendors. Although this is more evident in the context of digital enterprises, it applies to all other business models as well (Kraus et al., 2019; Nambisan, 2017). Therefore, it's vital for people to understand how the working of individuals varies when services or processes are shifted digitally (Information and Communication Technology).

Objectives

RO 1: Identify the impact of connecting between digital transformation and digital entrepreneurs.

RO 2: Determine the digital transformation strategies and technological platforms for creating value for digital entrepreneurship.

LITERATURE REVIEW

With the rapidly changing business environment, digital transformation has become one of the key growth and innovation catalysts especially for startups who are looking to make a name in highly competitive markets. Transformation (Taheri et al., 2024) "Digital transformation is the integration of digital technologies into all aspects of a business, changing how you operate and deliver value to customers" (Li, 2020; Westerman et al., 2014; Waheed et al., 2010). This includes the use of technologies like artificial intelligence, cloud computing, data analytics and automation to simplify processes, improve customer experiences and increase organizational flexibility (Abbas & Myeong, 2024).

It's not an understatement to say digital transformation is core because startups are ever going to grow and innovate (Mackay et al., 2023). In these digital times, when everything is going automated across all relevant spheres in the life of any entity, it's something every startup has to make peace with because they are serious about surviving and doing well (Clemente-Almendros et al., 2024; Kanval et al., 2024). Digital transformation further complies to facilitate start-ups in streamlining their operations capacity, expanding capably and producing disruptive products or services that help customer requirements to meet ever-changing needs. (Saarikko et al., 2020; Warner & Wäger, 2019).

At the same time, using digital technologies strategically can help startups gain access to new sources of revenue, new markets which have not been discovered by experienced players (Chen et al., 2024).

The prevalent characteristic of businesses revolving around digital entrepreneurship stem from the sphere demanding IT as well as essentials similar to regular businesses (Mackay et al., 2023). Entrepreneurs, therefore, need to be double-edged swords in that they must have both technical knowledge and skills as well as business-related knowledge-equity (Fernandes & Burcharth, 2024). There are two types of entrepreneurs: The first type is the research-based entrepreneur, who commercializes original technological discoveries (Thekkoote, 2024) The second type is an imitative entrepreneur registers existing markets, and puts the necessary organizational resources that are already possible to assemble into them (Panchal et al., 2024; Jam et al., 2010). Recently, digital entrepreneur was discovered due to their dependence on digital media tools and Information Technology (IT) which attracted them in the direction of discovering more entrepreneurial opportunities (Mackay et al., 2023).

Digital Transformation

Digital transformation in SME business is a company's complex, multi-faceted activity of integrating digital technologies in all functional areas, processes and activities that purpose to fundamentally change the way businesses deliver value to customers (Akter et al., 2023b). Digital transformation is the procedure, and it's not just acquiring new digital tools and technologies (Panchal et al., 2024). As much as anything, it's about changing the way you think act and do business within your organization (Fernandes & Burcharth, 2024).

One of the most important features of digital transformation in SME's includes using cloud-based platforms and software that would allow to optimize the performance, work faster, and even work from a distance (Kargas et al., 2023). Some of the platforms that are used to support such activities include customer relationship management systems, enterprise resource planning software or project management tools etc (Bhuiyan, 2023). Such small businesses and medium-sized enterprises can use the same to optimize their processes, unlock insights from data, or enable decision-making based on advanced analytics (Bhuiyan, 2017; Mackay et al., 2023).

Angela also believes that with the concept of digital transformation; there is an opportunity to reimagine customer visions and engagements over digital channels. This includes having a solid online presence, incorporating e-commerce capabilities (Milon, 2024), the ability to sell directly on the website and using social media and digital marketing methods to find and speak with customers you wouldn't have been able to before (Chen et al., 2024).

SMEs must also realise that digital transformation is as much about people and process, as it is around technology (Kargas et al., 2023). To run a successful journey in digitization, embracing the innovation culture, enabling employees with their digital skills and literacy and rethinking of how researchers can take an advantage into the traditional business models would be an integral part (Mackay et al., 2023).

In this highly dynamic digital-first environment, SMEs that look to embrace and grow their business via digital transformation can easily accommodate the changes in market dynamics while enhancing operational flexibility for paced sustainable growth (Kargas et al., 2023). Alongside the incorporation of cloud-based platforms and revolutionizing consumer experiences, digital transformation within SMEs (Bhuiyan, 2023) also includes using data analytics and artificial intelligence to be more informed in client conduct, market trends, and internal operations (Ullrich et al., 2023). Leveraging

data and AI allows SMEs to be more data-driven, offering personalized solutions that cater to the various needs of customers (Cubric & Li, 2024).

This is in addition to how collaboration and partnerships with technology vendors, industry experts and other SMEs prove invaluable when it comes to guiding you through the complexities inherent in digital transformation (Fernandes & Burcharth, 2024). By utilizing out specalised expertise and resources, outsourcing can help guide you through the transformation journey (Denga & Rakshit, 2022). On the whole, digital transformation is a massive opportunity for SMEs to improve their competitiveness (Bhuiyan et al., 2023), awards and innovation abilities in the age of digitalization (Kargas et al., 2023). The combination of technology, people and process offered by taking a holistic view allows SMEs to weather the storm and stay ahead of curve over the long term rather than just dealing with one crisis after another (Mackay et al., 2023).

Digital Entrepreneurship

Digital entrepreneurship can be described as entrepreneurial opportunities formed (Hossain et al., 2024) and exploited using technological platforms such a computer software, networking equipment including modems and other information conveying facilities (Malik et al., 2022). As a result, digital entrepreneurship can belong to various types of business (Fernandes & Burcharth, 2024). Another trait of DE is, that it can be fully viewed as a multi-faceted combination of business-, knowledge- and institutional entrepreneurship which act in symbiosis. Business Entrepreneurship- this is the one most of you hear, discuss and talk all the time (Malik et al., 2022; Hossain et al., 2024). Knowledge entrepreneurship is a form of entrepreneurship defined by the formation and search of information or knowledge-centric opportunities, and it includes both the market expansion of existing goods or services as well as entry into new markets with new goods or services based on knowledge (Khanom et al., 2022). "Institutional entrepreneurship" refers to the actions that entrepreneurs engage in, working with resources and envisioning new organizations or transformation of existing structures (Joel et al., 2024). Thus, digital entrepreneurship is essentially a mix of the three entrepreneurial practices above.

Relationship with Digital Transformation and Digital Entrepreneurship

Digital transformation and digital entrepreneurship have an interdependent relationship. Digital transformation involves the incorporation of digital technology into all aspects of a business, thus changing how it operates and delivers value to its clients (Malik et al., 2022). In contrast, digital entrepreneurship refers to creating and growing new ventures which make use of digital technologies (Bhuiyan & Akter, 2024). Digital transformation ecosystem is a great enabler and backbone for digital entrepreneurship to emerge (Denga & Rakshit, 2022). The trend is reflected in the ability of digital technologies to help new businesses gain billions of customers (Salam et al., 2021), invent unprecedented products and services, and connect with others like never before.

Furthermore, digital transformation, also provides the digital entrepreneurs with adequate tools and platforms to improve their operational efficiency, collect data and present valuable insights to enable them make intelligent decisions for business (Oyewole et al., 2024). Consequently, digital entrepreneurship has the power to spark greater levels of innovation and disruption across sectors in figure 1 where there are creating markets more competitive and more robust in the process (Hossain et al., 2024).

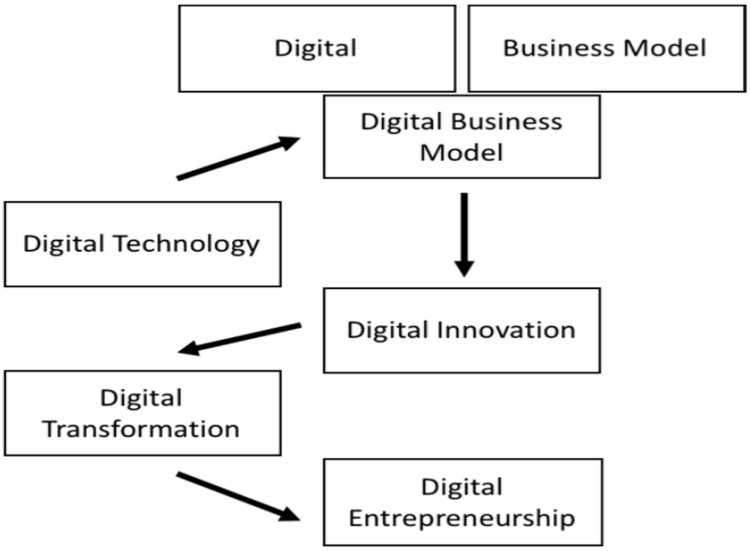

Figure 1: Interconnection of Digital Transformation and Entrepreneurs

Distinguishing the relationship between digital transformation and digital entrepreneurship is greatly significant for businesses that are planning to distinguish themselves in the generation (Malik et al., 2022). By doing this, with a digital focus on fostering and supporting digital entrepreneurship more effectively (Hossain et al., 2024), businesses can develop an ecosystem that will enable to help them grow sustainably in a rapidly expanding number of ways in table 1 (Joel et al., 2024).

Table 1: A list of Digital Transformation Strategies for Digital Entrepreneurship

Name of the Strategies	Name of the Strategies	Sources
Customer-Centric Approach	Employ digital tools to gain a deeper understanding of customer needs, tailor offerings to individual preferences, and elevate the overall customer experience across all points of interaction.	(Denga & Rakshit, 2022)
Data Analytics	Utilize sophisticated analytics methodologies to extract valuable insights from extensive datasets, facilitating well-informed decision-making and predictive analytics to drive business expansion.	(Joel et al., 2024)
Cloud Computing	Cloud services offer organisations the opportunity to enhance their operations by leveraging scalable, flexible, and cost-effective solutions for managing infrastructure, data storage, and software applications.	(Fernandes & Burcharth, 2024)
Internet of Things (IoT)	The integration of Internet of Things (IoT) devices and sensors allows for the collection of real-time data, which can be utilised to optimise operational processes and generate additional revenue streams by developing innovative products and services.	(Malik et al., 2022)
Artificial Intelligence (AI)	The utilisation of artificial intelligence (AI) algorithms has proven to be highly advantageous in automating tasks, tailoring experiences to individual users, and facilitating intelligent decision-making across a wide range of business operations, including marketing, sales, and customer service.	(Mohammad et al., 2024)
Machine Learning (ML)	In terms of usage A wide variety of corporate activities, such as marketing, sales, and customer service, have benefited greatly from the implementation of machine learning algorithms, which have proven to be extremely advantageous in automating jobs, personalising experiences for individual users, and facilitating intelligent decision-making.	(Clemente-Almendros et al., 2024)

Blockchain Technology	It is important to investigate the applications of blockchain technology in order to improve the safety, transparency, and efficiency of transactions, supply chain management, and digital identity verification among other areas.	(Mohammad et al., 2024)
Digital Marketing Strategies	Utilise digital marketing strategies like as search engine optimisation (SEO), search engine marketing (SEM), content marketing, and social media marketing in order to efficiently reach target audiences, as well as to promote consumer engagement and conversion.	(Joel et al., 2024)
E-commerce and Mobile Commerce	The establishment of an online presence through the use of e-commerce platforms and mobile applications will allow for transactions to be completed without any interruptions, will improve accessibility, and will broaden market reach.	(Fedyunina et al., 2024).
Cybersecurity Measures	In order to secure digital assets, customer data, and intellectual property against cyber threats and breaches, it is important to implement effective cybersecurity procedures.	(Fernandes & Burcharth, 2024)
Continuous Digital Innovation	In order to maintain a competitive position in the digital market, it is essential to cultivate a culture that encourages innovation and experimentation in order to continuously investigate new digital technologies, operations, and revenue streams.	(Atadoga et al., 2024).
Sustainability Initiatives	It is important to include sustainability principles into digital operations and offers in order to reduce the negative impact on the environment, fulfil regulatory requirements, and improve the reputation of the business.	(Chen et al., 2024)
Digital Talent Development	Investing in talent development programmes and digital skills training can help you establish a talented staff that is capable of driving innovation and effectively harnessing emerging technology.	(Addy et al., 2024)
Collaborative Remote Work	Enhanced flexibility and efficiency in a digital work environment can be attained by employing collaboration tools and technology. These tools and technology can be utilised to enhance remote work, facilitate virtual meetings, and promote team communication.	(Fernandes & Burcharth, 2024)

METHODOLOGY

The research is based on qualitative approach where secondary data collection was approached because emerging technologies have not fully applied in entrepreneurs in a developing economy. Given the novelty of the research topic on digital transformation in the context of entrepreneurs in Bangladesh, the study is likely to employ qualitative approaches. The data for this research will be sourced from secondary sources, such as various journals, articles, TV news (Mohammad et al., 2024), and online portals. The objective of this research is to uncover the criteria necessary for developing a robust and effective digital transformation for entrepreneurs in Bangladesh (Islam et al., 2024). Moreover, since the concept of emerging technologies is still not widely adopted across all sectors of the country's economy (Panchal et al., 2024), there is a need to draw upon strategies from technologically advanced nations and succinctly summarize them in a manner that addresses the concerns of all sectors (Denga & Rakshit, 2022).

The 2020 PRISMA statement replaces the 2009 statement and integrates revised guidelines for reporting. These guidelines incorporate the latest advancements in methodologies used to identify, select, evaluate, and combine studies. Changes have been made to the structure and format of the items to improve ease of implementation (Joel et al., 2024).

The current study employed the PRISMA standards, specifically developed for conducting systematic reviews and meta-analyses of observational data. Researchers conducted an extensive search for original publications published between May 2021 and May 2023, including global databases such as Scopus, PubMed, Web of Sciences, DOAJ, and Direct Science (Zheng et al., 2024). Figure 2 depicts the systematic process followed for retrieving the database through a codified procedure. Language constraints were not imposed during the search process. The search technique utilized in this study involved the incorporation of relevant key terms related to the primary focus of the investigation, such as Digital Transformation, Digital Entrepreneurs, PRISMA, SME's, Entrepreneurial Work, and Impact of Digital Transformation (Atadoga et al., 2024). Identification, screening, and inclusion of options are performed by categorizing them based on specific criteria and depicted in figure 2. Any records that do not correspond to the specified keywords or research subject are excluded. Various factors, such as inadequate data, papers in different languages, diverse outcomes, and unrelated effects and results, are taken into account when rejecting publications and reports (Oyewole et al., 2024). The selection process has resulted in the identification of 185 additional papers for inclusion in the study.

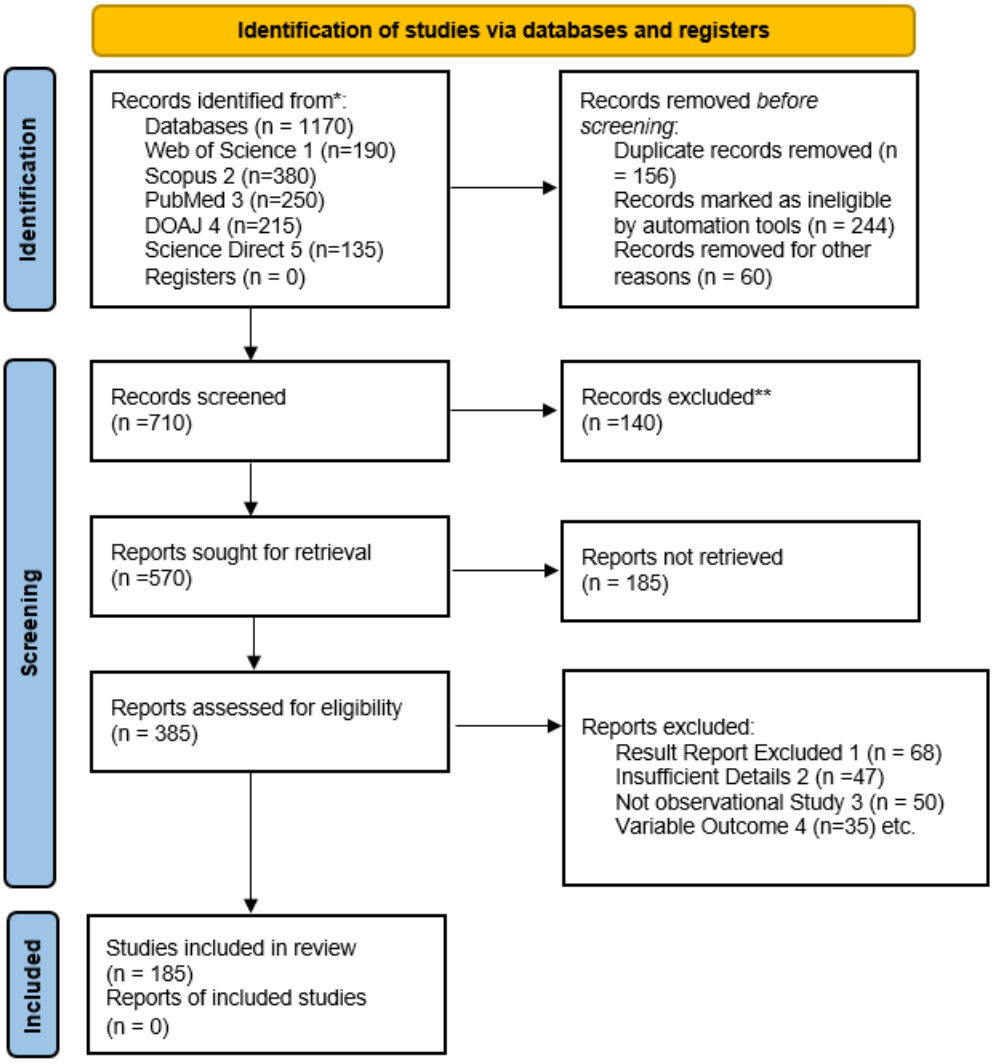

Figure 2: PRISMA Based Systematic Review

Source: (Haddaway et al., 2022)

DISCUSSION

The researcher discussed with the role and activities of entrepreneurs where the impact of digital technologies on entrepreneurial work was interpreted in this section. The use of technology was seen as a rational choice, focusing on selecting the appropriate communication medium for a given task where the emerging technologies and tools for entrepreneurs for fostering the operations.

Role and activities of entrepreneurs

The role and activities of entrepreneurs are critical for the survival and success of entrepreneurial firms, which are defined as companies that introduce new products and services to the market by identifying and seizing opportunities. Entrepreneurs, who are typically the founders or owners of these small to medium-sized companies, have a significant influence on the strategy and organization of their businesses (Oyewole et al., 2024). Within these organizations, owners take on various roles and engage in different activities such as directing, planning, monitoring, selling, and coordinating (Mueller et al., 2012; Mia et al., 2024). Owners are responsible for designing the organization and determining its strategic direction (Burton et al., 2019). The success of entrepreneurial firms is strongly correlated with the entrepreneur's intellectual capital, capabilities, and personal networks (Ruiz et al., 2024). Furthermore, the past experience of the entrepreneur has been found to impact various aspects of a firm's performance, including innovation (Mohammad et al., 2024).

The Impact of Digital Technologies on Entrepreneurial Work

The integration of digital technologies into management and organizational studies is a well-established area of research (Poli et al., 2024). Initially, the use of technology was seen as a rational choice, focusing on selecting the appropriate communication medium for a given task (Panchal et al., 2024). However, this perspective has been challenged by subsequent theories that emphasize the user experience, such as channel expansion theory (Oyewole et al., 2024). More recent approaches view the relationship between technology and work as an evolutionary process in table 2 (Amin et al., 2024), where individuals, despite some initial resistance, gradually adopt and adapt to new technologies as they become more accessible. One such approach is media compensation theory (Joel et al., 2024).

Table 2: Emerging Tools and Technologies for Entrepreneurs

Name of the Tools	Applicable for Entrepreneurs	Source
Social Networking	Social networking platforms such as LinkedIn, Facebook, Twitter, and Instagram play a crucial role in the strategic efforts of entrepreneurs to establish and enhance their brand presence, foster connections with prospective customers, and engage in professional networking with peers within their respective industries.	(Addy et al., 2024)
Video Call	Video conferencing tools such as Zoom, Microsoft Teams, and Google Meet have emerged as indispensable tools for facilitating remote collaboration.	(Fedyunina et al., 2024).
Voice Call	VoIP: Skype, WhatsApp, and Viber offer affordable and flexible voice communication. AI Voice Assistants such as Alexa for Business and Google Assistant handle tasks, create reminders, and operate hands-free. UCaaS solutions integrate phone, video, and messaging into one interface.	(Clemente-Almendros et al., 2024)
Instant Messaging	Instant messaging platforms such as Slack, Microsoft Teams, and WhatsApp play a crucial role in facilitating real-time communication. They provide features such as Bots and Automation, Secure Messaging, File sharing, interaction with project management applications, and threaded chats.	(Akanfe et al., 2024)

Business Intelligence	BI tools play a crucial role in facilitating data-driven decision-making, and there have been significant advancements in this field. Advanced analytics platforms such as Tableau, Power BI, and Looker provide users with the capability to perform predictive analytics and visualize data.	(Denga & Rakshit, 2022)
Email	A mainstay of corporate communication, email is still quite successful thanks to developing technology: AI-Powered Email Management: Smart sorting and scheduling capabilities of programmes like Boomerang and SaneBox help control inbox overflow.	(Andrade-Rojas et al., 2024)

Attitudes for promoting digital entrepreneurship

Researchers play a critical role in fostering digital entrepreneurship by identifying trends, analyzing strategies, and driving innovation and growth in the digital landscape (Mohammad et al., 2024). Through in-depth studies on the latest technologies, market dynamics, and consumer behavior (Masum et al., 2024), researchers provide valuable insights that empower aspiring entrepreneurs to make informed decisions and navigate the complexities of the digital economy (Musyaffi, 2024). Research-driven approaches such as market segmentation analysis, competitive benchmarking, and trend forecasting help aspiring digital entrepreneurs identify market gaps (Ruiz et al., 2024), develop unique value propositions, and capitalize on emerging opportunities in the digital space (Atadoga et al., 2024). By leveraging research-backed strategies and staying updated on industry developments, researchers support the growth and success of digital entrepreneurs in a constantly evolving business environment in table 2 (Mohammad et al., 2024).

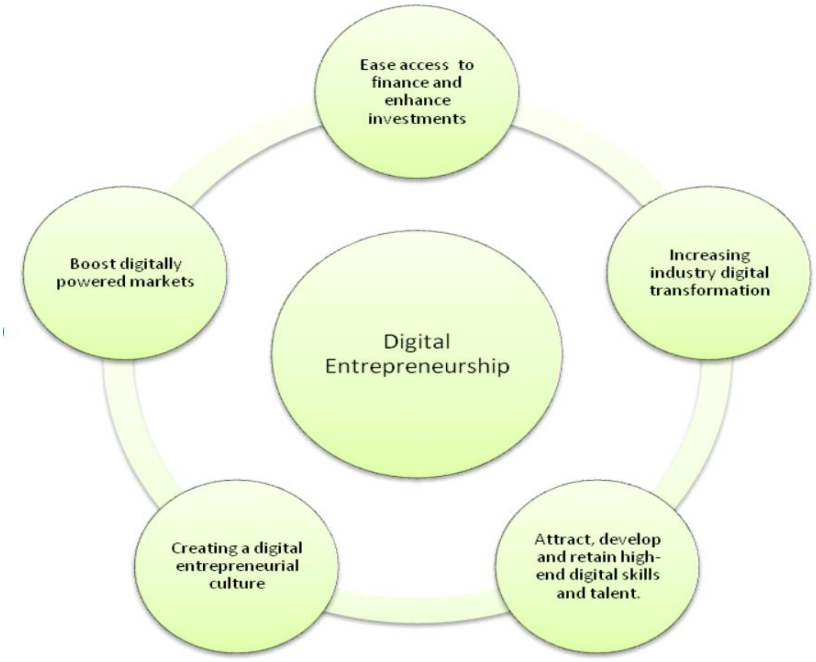

Figure 3: Approaches to foster digital entrepreneurship

To enhance digital entrepreneurship, several strategic approaches can be implemented. Firstly, continuous investment in research and development is crucial to keep pace with the rapidly evolving digital landscape in figure 3 (Musyaffi, 2024). By staying informed about the latest technology trends and consumer behaviors, researchers can identify new entrepreneurial opportunities and design innovative solutions (Rogers, 2016). Secondly, fostering collaboration and partnerships within the digital ecosystem facilitates knowledge exchange and resource sharing, allowing researchers to leverage diverse expertise and capabilities (Panchal et al., 2024). Additionally, providing access to mentorship and incubation programs empowers aspiring digital entrepreneurs with the necessary

guidance and support to navigate challenges effectively in figure 3 (Mia et al., 2024). Embracing these approaches helps researchers cultivate an environment that nurtures digital entrepreneurship and drives sustainable growth in the digital economy (Fedyunina et al., 2024).

CONCLUSION

In conclusion, the implications of the current study are not only valid for entrepreneurs, but other stakeholder groups that can benefit from the knowledge related to entrepreneurial firms as well: scholars and universities/educational institutions; policymakers; and ICT developers (Fedyunina et al., 2024). In fact, understanding what entrepreneurs actually do on a daily basis will certainly lead to better suited ways of supporting the job that firm owners are out there doing — be it through more effective technological tools for them, improved training programs and materials or public policies in this sector (Musyaffi, 2024). As a result, more capable entrepreneurs will take their firms to a level where they succeed and benefit the entire economy (Rogers, 2016). This research also explicates into comprehending the digital transformation of entrepreneurship into the different phases of digital transformation. Moreover, this paper provides greater insights into the determinants of technology entrepreneurship, as well as the impact of technology on producers, consumers, and policymakers which accelerates the substantial impact on a country's economic progress.

Limitations and Future Directions of the Study

The study might exhibit a publication bias, showing a preference for papers published in prestigious publications or those that present positive results. The choice of databases (such as Scopus and Web of Science and others) could restrict the inclusiveness, as certain pertinent studies may be catalogued in alternative databases. Variations in the rigor and quality of the research included may impact the overall dependability and accuracy of the review's findings. In order to provide a more comprehensive range of insights, future evaluations could incorporate grey literature, such as conference papers, dissertations, and reports (Saha et al., 2024). Future study could potentially explore the evolution of digital transformation and entrepreneurship over time by conducting longitudinal studies. By acknowledging and overcoming these constraints and investigating the proposed future avenues, future studies can offer more thorough, sophisticated, and practical understandings of the changing realm of digital transformation and digital entrepreneurship.

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CONFLICT OF INTEREST

There is no conflict of interest to publish this article in this journal. No external funding has been received to conduct this systematic review study.

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