



Digital Communication and Its Relationship to SME Empowerment and Performance

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Abstract. Digital communication is important in empowering small and medium-sized enterprises (SMEs). This article discusses the conceptual framework for digital communication and other factors influencing entrepreneur empowerment and SME performance. A documentation technique was used to collect data. Relevant empirical literature published in international journals indexed by Scopus during 2012-2022 was selected. The search was limited to the English language. A total of 50 articles were evaluated. This review proves that entrepreneur characteristics, SME characteristics, digital communications technology adoption, human capacity, digital activities, and external factors are related to entrepreneur empowerment and SME performance. This research should continue with studies using quantitative and qualitative methods applied to different SMEs. Questionnaires, in-depth interviews, and focus group discussions (FGD) can be added to the data collection technique. The selected articles should be collected from international journals indexed by Scopus and Clarivate Analytics Web of Science (WoS), Google Scholar, and other platforms. The results can be useful for researchers and practitioners in digital communication in SMEs.

Keywords: Digital Communication, digital enablers, entrepreneur empowerment, external support, human capital, innovation activities, SME performance, and technology adoption.

1 Introduction

Digital communication plays an important role in strengthening the entrepreneurial capabilities and performance of SMEs. The adoption of digital communication technologies is important to promote the development of small businesses. Compared to large enterprises, SMEs still face a digital communication gap that affects the sustainability of SMEs [1]. Barriers to adopting digital communication in SMEs include insufficient understanding of digital technology and a lack of required skills [2]. Lack of trust in service providers or platforms, technological complexity, lack of SMEs stakeholder and community competency in using digital communications, long implementation timelines, and need for additional infrastructure or equipment [3]. SMEs actors have not been able to adopt digital communication media because they do not have an adequate security system to protect against hacking and malware [1].

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D. Games and Maruf (eds.), *Proceedings of the International Conference on Entrepreneurship, Leadership and Business Innovation (ICELBI 2022)*, Advances in Economics, Business and Management Research 269,
https://doi.org/10.2991/978-94-6463-350-4_41

Adopting digital communication allows businesses to reach consumers on a national and international scale, which helps them expand their markets and increase competitiveness. Adopting digital communication can also optimize business processes, enabling faster delivery and payment and reducing operational costs such as store rental and stock expenses. This, in turn, allows businesses to provide better services to consumers by offering more complete product information, attractive promos and discounts, and superior customer service. If businesses that own physical stores do not use digital communication, they could miss significant business opportunities and find it challenging to compete with others who have adopted digital communication. Furthermore, businesses not adopting digital communication media may lose customers who prefer to shop online. Therefore, adopting digital communication is becoming increasingly critical for business actors to remain competitive and maintain their business in this digital era.

This literature study is crucial because, unlike previous research models that focused on either internal or external factors that affect the empowerment of business actors, this research refines the previous model by combining internal and external factors and includes the level of adoption of digital communication to encourage the empowerment of business actors and the performance of MSMEs. The factors involved in this model are entrepreneur characteristics, SMEs characteristics, human capital, digital communication adoption, environmental factors, digital enablers, and innovation activities. This model can provide recommendations for business actors, the government, and other stakeholders by applying these factors to improve the empowerment of business actors and the performance of SMEs in the digital era.

2 Methods

This article discusses the conceptual framework of digital communication and other factors that influence entrepreneurial empowerment and small and medium-sized enterprises (SMEs) performance. Data collection was conducted using a documentation technique. Relevant empirical literature published in international journals indexed by Scopus during 2012-2022 was selected. The search was limited to the English language. A total of 50 articles were reviewed.

3 Results and Discussion

3.1 Characteristics of The SME Actors

Individual characteristics are special qualities of a person. Demographic variables describe a person's characteristics, e.g., gender education; physical health variables, e.g., subjective health and the number of health conditions; and psychological factors, e.g., motivation and locus of control [4].

Demography comes from two Greek words, namely *Demo*, which means people, and *Graphos*, which means writing. This term was first used by a Belgian statistician, Achille Guillard, in 1855 in the title of his book *Elements de statistique humaine: Ou demographie compare*. Demography is the study of human populations, especially regarding the size, structure, and development of humans. One focus of human demography is population composition, defined in terms of individual characteristics. Individual characteristics consist of two kinds, namely characteristics that

are brought from birth because they never change during a person's life, such as place of birth, gender, and age, while individual characteristics that are not brought from birth, such as place of residence, work, marital status, and educational attainment. [5].

Abotsi et al. examined the relationship between SME actors' characteristics and SME actors' decisions to manage risk. The demographic factors characteristic of SME actors and associated with the ability to manage risk to improve SME performance, profitability, and sustainability are age, education, gender, marital status, number of family members of the business actors, experience, and knowledge. The results of the study show that education and gender influence SME actors' decisions to manage risk [6].

Burke and El-Kot analyze the relationship between the characteristics of SME actors and the effectiveness of using human resource management practices, which also affect MSME performance. The demographic factors of SME actors consist of age (25-35, 36-45, 46-55, > 55), the number of years they have been entrepreneurs (<5, 6-10, > 11), gender (male or female), education level (high school, college graduate, college graduate, post-graduate), and the number of years they have been entrepreneurs in the current MSME (< 5, 6-10, > 11). The level of education of business actors, gender, and experience as a business actor is not significantly related to the effectiveness of human resource management practices on SME performance [7].

Chaowai et al. analyzed the relationship between SME owner characteristics and transformational leadership. The demographic characteristics of MSME stakeholders consist of gender (male and female), age (< 40, 41-50, 51-60, > 60), education, duration of business (1-5, 6-10, 11-15, > 15), number of employees (0-50, 51-100, 101-150), business category of medical devices (medical materials, medical products, other medical, services and software, reagents and diagnostic equipment). The study results show that most 65.5% of entrepreneurs are men; 83% are between 41-50 years old. In terms of education level, 45.5% have a master's degree. The duration of business activity was 6-10 years, representing 47.2% of the sample. 57.4% work in companies with 51-100 employees. For the medical equipment business category, medical materials account for 39%. Age, education level, and duration of business can explain the variation of transformational leadership with 49% percent significance at the 0.05 level. This has the strongest relationship with transformational leadership [8].

Cocker et al. examine the incidence and consequences of psychological pressure on SME owners. The demographic factors of SME actors studied consisted of age, gender (male or female), education, type of industry (service, health, construction, retail, innovation, science, technology, finance, manufacturing, transportation, agriculture, tourism, wholesale, mining, and others) [9].

Eze et al. examined the demographic factors for SME adoption of mobile marketing technology. The demographic factors of SME actors consist of experience, age, education, gender, and location of SMEs. The results show that the experience, age, and education level of SME leaders are statistically significant, and the location of the enterprise significantly moderates the adoption of mobile marketing technology. Gender also influences the adoption of mobile marketing technologies in SMEs [11].

Based on this description, the indicators to be studied for characteristics of The SME actors are gender, age, marital status, formal education, residence, monthly income, and length of business experience.

3.2 SME Characteristics

Abotsi et al., in their study, investigated the characteristics of enterprises to reduce risk and improve the performance, profitability, and sustainability of MSMEs, namely the type of enterprise, the skills of employees, the number of business owners, and the location of the enterprise. The study results show that all business characteristics of MSMEs influence the decision to manage risk [6].

Burke and El-Kot analyze the relationship between the characteristics of SMEs and the effectiveness of using human resource management practices, which also affect the performance of SMEs. The characteristics of the enterprises in this study were the age of SMEs (< 5, up to 10, 11-15, > 15), the presence of a department HR (yes or no), ownership (family-owned businesses, non-family-owned businesses), the number of employees (< 100, 100- 500, 501-1000, > 1000), the presence of professional staff (yes or no), the industry sector (manufacturing, retail, service, wholesale, distribution). The age of SMEs and the industrial sector are not significantly related to the effectiveness of human resource management practices on SME performance [7].

Vasan analyzes the characteristics of the enterprise, namely the age of the enterprise, the location of the enterprise, and the type of the enterprise. Enterprise characteristics such as the age of the enterprise, the location of the enterprise, and the type of the enterprise affect enterprise performance. The study concludes that enterprise characteristics are significantly related to SME performance [12].

From the description, the indicators of SME characteristics to be studied are the type of business, the duration of the business, the number of employees, and the location of the business.

3.3 Digital Communication

Prompt, timely, relevant, and effective communication with customers and suppliers is the backbone of business and marketing. When customers and other stakeholders can chat live and discuss issues, complaints, questions, and other matters with company representatives, it builds trust and acceptance of the company's quality of service. This type of activity is now possible through digital communication media. Customers can interact directly with company representatives via the Internet until they are completely satisfied and receive complete answers to their questions and complaints. A well-designed and informative complete web portal or e-commerce website of the company that explains and presents all relevant and possible details about products and services. Live chat has no better competition. It is an innovative tool in the modern era to reach customers on a large scale with all the attributes they want to communicate and share. Tweeting and live chat can be very useful for SMEs. SMEs can benefit through better and faster communication, increased revenue, and significant expense savings. Emails, ads, blogs, and landing pages can be effective communica-

tion tools to reach customers about a business. SMEs can inform their customers about the arrival of new goods, new products/services, and the launch of offers and campaigns. Corporate communication through digital media is immediate and effective, leading to more extended contacts. Long-term continuity of contacts is ensured. Customers are always within reach and can communicate with companies when needed [13].

3.4 Digital Enablers

Digital enablers play an important role in transforming knowledge through digitization for technopreneurs [14]–[16]. It enables new business ideas by developing innovations and enhancing existing capabilities for better outcomes [14], [17], [18]. In this way, it strengthens digital transformation by providing a single point of knowledge that can be leveraged to develop new value outcomes for successful technopreneurs. Moreover, entrepreneurial skills also play an important role in continuous learning associated with entrepreneurial skills and a sense of results [14], [19], [20]. Moreover, it is a way for successful entrepreneurs to focus on innovative thinking and foster organizational capacity to learn the necessary skills and understand future business outcomes [14], [18], [21]. Four indicators can measure the digital enablers of entrepreneurs. They are digital communication, digital commerce, digital literacy, and digital access [14].

From this description, the digital enabler indicators to be studied are digital communication, digital commerce, digital literacy, and digital access.

3.5 Digital Communication Technology Adoption

The degree of ICT integration and use has a significant impact on SME performance. ICT adoption can improve SME performance if the technology is properly integrated and used [22].

Perceived Usefulness and Perceived Ease of Use

There is a positive and significant relationship between perceived ease of use and perceived usefulness of digital media [23]

Intensity of Technology Use

The intensity of ICT use has a positive and statistically significant impact on the labor productivity of MSMEs [24].

Based on this description, the indicators of the level of adoption of digital communication technology that will be studied are the perception of ease of use, perceived ease of use, and intensity of technology use.

3.6 Innovation Activities

Shah et al. studied four innovation activities to improve MSME performance, namely product innovation, process innovation, marketing innovation, and organizational innovation. Product innovation is the development of novelties for current products or services that result in increased ease of use for customers and increased customer satisfaction; process innovation is the improvement of the quality of output in processes, equipment, techniques, and software created; marketing innovation is the updating of distribution channels without changing the logistics processes associated with the delivery of products or services; and organizational innovation is the updating of the human resource management system [25].

From this description, the indicators of innovation activity to be studied are product innovation, process innovation, marketing innovation, and organizational innovation.

3.7 Human Capital

Human capital is an important influencing factor for the digitization of SMEs. The increase in productivity at the microeconomic level is not only the result of technological progress but also an effect of the diffusion of ICT at the level of human resources. SME actors need to be able to use this technology for companies to benefit from ICT adoption. The adoption of ICT in SMEs is an important factor for sustainable economic development [26].

Leadership

Leadership factor refers to the innovation that transforms ideas into quality results through technology. An entrepreneur needs leadership factors in innovation, which is competitive (Alkhoori et al., 2021). Management, which drives organizational performance [14], [28]. And profitability, which focuses on business value as a competitive advantage. [14], [29]. Thus, business leaders must be effective and ensure sustainability by focusing on aligning the structure and role of business performance. The leadership factor has a deep-rooted commitment to find better ways to guide and demonstrate business performance. Organizations need leadership and technology management to achieve effective results. In addition, the leadership factor provides a plan, direction, and motivation to develop future development ideas for business value. Entrepreneurial capabilities can be measured by five indicators, namely decision evolution (power sharing and promoting responsibility), collaborative performance (sharing knowledge and ideas), agility (learning and seeking new ideas, promoting innovation), and goals and direction (inspiring and socializing). Shared goals and vision), and authentic (acting with integrity and earning trust) [14]. Entrepreneurial leadership and learning orientation have positive and significant impacts on SME performance [30].

Entrepreneurship Skills

SME entrepreneurial skills can be measured by three indicators, namely interpersonal skills, critical thinking skills, and practical skills [14]. Entrepreneurial skills, namely commitment, organization, and leadership, as well as personal, are significantly related to the success of SMEs [31].

Knowledge

MSME human resources must include skills such as teamwork, knowledge of market trends, and ability to carry out efficient strategic processes and decisions, as well as language skills, sales skills, and digital communication [32].

Business Experience

The results show that profitability and productivity are positively related to the knowledge possessed by MSME owners before starting the company and general business knowledge obtained after the company was up and running. Experience as a result of working in a company in the same industry before starting a business is related to productivity [33].

Self-efficacy and Resilience

Self-efficacy is the belief in one's ability to achieve something desired because it promotes the pursuit of human well-being and achievement. For this reason, self-efficacy has a critical influence on feelings, thoughts, behavior, and intrinsic motivation. It activates personal belief in one's ability to achieve and enables one to understand possible failure as a limitation that can be improved. Self-efficacy is a positive belief that it is possible to perform new or complex tasks to achieve the desired outcome. Resilience is the universal capacity that enables an individual, group, or community to prevent, minimize, or overcome the harmful effects of adversity; as the ability of a dynamic system to successfully adapt to disturbances that threaten the system's functioning, survival or development; as the outcome of negotiations between individuals and their environment for resources that are defined as healthy amid conditions that are collectively viewed as adverse; and as the ability to use knowledge, attitudes, and skills to prevent, minimize, or overcome the harmful effects of crisis and adversity. Self-efficacy and resilience are two essential skills to succeed in today's complex situations characterized by digital transformation and the search for urgent solutions to unforeseen problems in the business world. Entrepreneurial skills are required to succeed professionally in today's job market. Today's complexity and uncertainty require these skills to realize global and digital transformation, create valuable products, and develop innovative services as a team. In this sense, skills that support behavior enable people to focus and be open to new things, create value, and communicate effectively. The nine competencies that shape the success of business actors are creativity and innovation, initiative, self-efficacy and resilience, strategic planning and evaluation, problem-solving, transformational leadership, clear and visual communication, teamwork, and networking [34].

According to this description, the human capital indicators to be studied are leadership, entrepreneurial skills, knowledge, experience, self-efficacy, and resilience.

3.8 Environmental Factor

Infrastructure Support

The government should provide SME-based infrastructure to reduce operating costs and increase profitability to support MSMEs. The dimensions of legal-regulatory policy, human resource development, finance, infrastructure, marketing, technology, research, and development contribute to the sustainability of SMEs [35]. Government policies should improve ICT infrastructure, promote the technological externalities of small and medium-sized enterprises (SMEs) in the industry, and establish ICT resource centers to support SME performance [36].

Family Support

Founders used five strategies to keep SME enterprises alive. The strategies are family support, selling on credit (buy now and pay later), groundwater to produce fresh water at low cost, paying great attention to wholesalers and retailers and good quality products, technology investment to save costs, and social networks [37]. The three types of family support studied (i.e., emotional, instrumental, and financial family support) were positively related to SME performance [38]. Family support, access to external financing, social networks, and allocation of resources are the most important sub-criteria influencing female SME owners' decision to innovate [39]. Factors that significantly affect business performance are family support, product cycle, and credit utilization [40].

Government Support

Small and medium-sized enterprises (SMEs) are an important component of the EU economy. They are the main driver of the EU economy, employing two out of three workers, creating 85% of all new jobs, and generating about three-fifths of EU value added. The EU is aware of their potential and seeks to provide them with financial support to facilitate their development and also to innovate [41]. There are three main ways to apply start-up technologies to SMEs: government support ("business incubator"), crowdsourcing (involving different people who use their knowledge, experience, and creative skills to solve business problems [13]). Female SME owners prioritize government policies, research and development, innovation strategies, and skills development as the most important criteria influencing their innovation decisions [39]. Government support has the greatest direct influence on SME owners' intention to use e-commerce [42]. Personal factors, environment, and government support have a positive and significant influence on MSME success [43].

Based on this description, the environmental factors indicators to be studied are infrastructure support, family support, and government support.

3.9 Empowerment for entrepreneurship.

Empowerment is the power that results from the interaction and articulation of culture and human initiative to work effectively and efficiently within the corridors of norms (ethical, social, religious, legal, and political) on which they are [44]. Empowerment in the context of society is the ability of individuals to join together in society and build the empowerment of the community in question. A society where most of its members are physically and mentally healthy, educated, strong, and innovative naturally has a high level of empowerment. However, in addition to the physical values mentioned above, there are intrinsic values in the society that are also a source of empowerment, such as family values, cooperation, struggle, and, unique to Indonesian society (and some other countries), diversity. Community empowerment is the element that enables a society to survive, develop, and progress in a dynamic sense. At the same time, community empowerment is an attempt to raise the dignity of those segments of society that, in their current state, cannot escape the trap of poverty and underdevelopment. In other words, empowerment is the enabling and empowering of the community [45]. Community empowerment is a fundamental element that allows a society to survive and develop dynamically by making progress. This community empowerment is the source of what is referred to in policy knowledge as national resilience. Community empowerment is an attempt to raise the dignity of those segments of society that, in their current state, cannot escape the trap of poverty and underdevelopment. In other words, empowerment means enabling and empowering the community to create a prosperous family [46].

Ability to Make Decisions

SME actors who have leadership and decision-making skills can effectively manage various technical and non-technical problems they face in their daily work. With high leadership skills, they can encourage employees to perform at high levels to work together to achieve organizational goals. SME actors effectively use and leverage the decision-making process to influence the internal and external environment of the business. Modern technologies can support decision-making; this is one of the capacity-building strategies developed by SME actors [47]. Decision-making strategy is an important factor for SMEs. Decision-making style (i.e., intuitive and/or rational) will moderate the relationship between the knowledge creation process and business performance [48].

Ability to Work in a Team

The results show that the profile of human resources should include skills such as the ability to work in a team, knowledge of market trends, the ability to carry out efficient strategic decisions and processes, language skills, sales skills, and digital communication [32].

Ability to Compete

The use of ICT by SMEs can increase their competitiveness; the Internet offers SMEs the opportunity to compete on a level playing field with large companies. The adoption of ICT is seen as a means to enable businesses to compete globally, increase efficiency, and build closer relationships with customers and suppliers. Therefore, the adoption of ICT is recognized as an important prerequisite that enables SMEs to consider information and communication technology as an important implementation in their business to gain a competitive advantage in the global market [49].

Ability to Solve Problems

SME actors who increase their knowledge and problem-solving capabilities can improve the work capability and productivity of SMEs [50].

Based on this description, the indicators of the level of empowerment to be studied are the ability to make decisions, the ability to work in a team, the ability to compete, and the ability to solve problems.

3.10 SME Performance**Improvement of Product Quality**

Quality is an important component in achieving competitiveness in providing products and services to their consumers or customers. Improving business processes, product and service quality, and increasing spending are factors in developing a better reputation (image), higher market share, and sustainable business results [51]. Passion and dedication, product and service quality, customer satisfaction, and hiring employees with the right skills can create a growth strategy for their business [52].

Improvement of Product Quantity

With effective SME policies, products can be significantly improved in quality and quantity [53]. Some forms of innovation, such as investing in technology, improving the quality of products or services, or being present in foreign markets, can be very important for the growth and success of SMEs [54].

Improvement of Service

Service quality is positively related to the financial performance of SMEs [55].

Improvement of Income

To support the stability of small and medium enterprises, it is very important to optimize information technology for product marketing, seize business opportunities, and increase income [56].

Based on this description, the indicators to be studied for the level of SME performance are improvement of product quality, improvement of product quantity, improvement of service, and improvement of income.

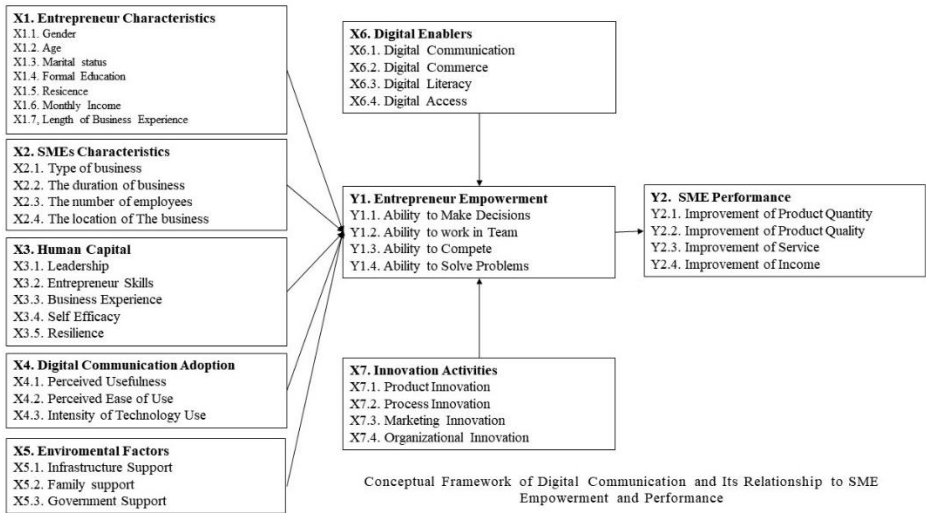


Fig. 1. Conceptual framework of digital communication and its relationship to SME empowerment and performance

4 Conclusion and Suggestions

There are internal and external factors that influence SME entrepreneur empowerment and SME performance. The internal factors are entrepreneur characteristics, SME characteristics, human capital, digital communication technology adoption, digital enablers, and innovation activities. The external factors are infrastructure support, family support, and government support. This research shows that internal factors and external factors are related to entrepreneurs' empowerment and SMEs' performance.

This research should continue with studies using quantitative and qualitative methods and applied to different types of SMEs. Questionnaires, in-depth interviews, and focus group discussions (FGD) should be used to complete the data collection. The selected articles are not only from international journals indexed by Scopus but also from Clarivate Analytics, Web of Science (WoS), Google Scholar, and other platforms. The results can be useful for both researchers and practitioners in the field of digital communication in SMEs.

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