

The Role of Non-Formal Education in Strengthening the Digital Capacity of MSMEs through Telkom Indonesia's CSR Program

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Abstract

Micro, Small, and Medium Enterprises (MSMEs) have significant potential for growth; however, they continue to face various challenges, particularly in digital adaptation. The Corporate Social Responsibility (CSR) program of PT Telkom Indonesia seeks to strengthen the digital capacity of MSMEs through learning processes based on non-formal education methods. This article aims to analyze the role of non-formal education in strengthening the digital capacity of MSMEs through the CSR program of PT Telkom Indonesia, which is implemented through training, mentoring, and the enhancement of digital access. The method used is a descriptive qualitative approach employing a literature study, with documentation as the data collection technique to analyze digitalization efforts in MSME empowerment as part of the CSR program implementation of PT Telkom Indonesia. The findings indicate that training improves human resource capacity, mentoring strengthens business management, legal compliance, and MSME development, while the utilization of digital technology enhances competitiveness and expands market access. The CSR program can thus be understood as a practice of non-formal education that contributes to strengthening the digital capacity of MSMEs.

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1. INTRODUCTION

The industrial revolution, accompanied by accelerated digital transformation, has brought significant changes to the economic landscape. This situation positions digitalization as a source of growth, driving business efficiency and expanding market opportunities. In the context of MSMEs (Micro, Small, and Medium Enterprises), several digital applications in business operations, such as *e-commerce*, QRIS, digital marketing, business branding, and digital financial recording systems, are all efforts to minimize the technological gap in the digital era (Jaya et al., 2025). This urgency is further heightened given the role of MSMEs in the Indonesian economy.

Within the Indonesian economic structure, MSMEs play a crucial role in increasing national output. Furthermore, at the regional level, MSMEs are driving the economy (Salsabila and Nurullah, 2026). MSMEs are a key pillar in the process of economic equality across regions. The flexible characteristics of MSMEs, along with business activities that align with community needs, are reasons why MSMEs are strengthening their relevance. The resilience of MSMEs in the face of these economic dynamics and pressures is a testament to the resilience and expansion of MSME actors.

Based on the SIDT-UMKM (Single Data Information System for Micro, Small, and Medium Enterprises), the number of MSMEs in Indonesia reached 30,178,617 business units as of December 31, 2024. This means that MSMEs have the potential to strengthen their position as pillars of the economy. This is inseparable from the challenges of digitalization faced by MSMEs. Changes in consumer behavior that increasingly move towards digital systems are forcing MSMEs to shift their economy to the digital space. On the other hand, MSMEs have not been able to adapt to these changes (Lawita et al., 2026), compounded by limited capacity in terms of capital, knowledge, and market reach, which causes economic shocks for MSMEs that could potentially lead to bankruptcy.

Table 1. Number of MSMEs in 2024

Category	Micro Enterprises	Small business	Medium Enterprises
Business Unit	30.089.488	73.816	15.313
Percentage	99,71%	0,24%	0,05%

Based on these conditions, MSMEs tend to operate in simple ways, generally as family-owned businesses, using simple technology, lacking access to capital, and not yet connected to the formal financing system (Surahman, et al., 2026). MSMEs play a vital role in national economic growth, making their strengthening and development crucial, especially in the digital era. On the other hand, MSMEs also lack an adequate understanding of how to use technology in their business activities (Yolanda, 2024). This situation indicates that MSME development requires learning methods tailored to the needs of MSMEs, so that capacity building can take place effectively and sustainably.

MSME development efforts can be implemented through non-formal education designed based on student needs. In the MSME context, this is relevant because it is flexible, contextual, and adapts to business needs, particularly in the face of technological developments and the demands of digitalization (Mustangin, 2021). Through non-formal educational learning methods, MSMEs are expected to improve their competencies and strengthen their capacities.

Implementation of non-formal education can be done through training, outreach, and mentoring approaches. Various parties can implement these approaches, including through programs. *Corporate Social Responsibility*(CSR). Within the CSR framework, positive CSR implementation impacts a company's image because social activities are perceived as a manifestation of ethical commitment and corporate responsibility (Sari et al., 2025). CSR programs with non-formal education implementation enable the transfer of knowledge and skills, thereby supporting the overcoming of obstacles.

Addressing MSME barriers, MSME digitalization efforts are being enhanced with a more comprehensive approach that integrates digitalization with business development. By strengthening business foundations through various legal frameworks and standardization, digitalization goes hand in hand with business development and sustainability. This effort aligns with the nature of *Corporate Social Responsibility*(CSR) that is integrated, targeted, and measurable as part of efforts to support the achievement of *Sustainable Development Goals*(SDGs) in the Regulation of the Minister of State-Owned Enterprises of the Republic of Indonesia Number PER-1/MBU/03/2023 concerning Special Assignments and Social and Environmental Responsibility Programs of State-Owned Enterprises.

One of the state-owned companies implementing CSR is PT Telkom Indonesia (Persero), a telecommunications and digital company. In general, CSR implementation has

a positive impact on the company's image because social activities are perceived as a manifestation of ethical commitment and corporate responsibility (Sari et al., 2025). Telkom contributes to the growth of MSMEs through its CSR implementation. Telkom strives to expand the capacity and deepen the capabilities of MSMEs (Micro and Small Enterprises) in facing the digital era (PT Telkom Indonesia, 2023). The main objective of this program is to reduce the digital divide and strengthen the role of MSMEs in the national digital economy.

Previous research conducted by Buntuang et al. (2026) showed that training, innovation, and digitalization can increase the capacity of business actors, both in terms of legality, marketing, and the use of digital technology. Furthermore, research by Nurqamar et al. (2026) on strengthening governance, training, and digitalization of MSMEs emphasized the importance of improving technical skills and legal awareness to support business sustainability. However, this research did not yet consider non-formal education as a means of increasing MSME capacity through CSR programs, specifically at Telkom Indonesia.

Based on this background, this article aims to analyze non-formal education as a means of enhancing the digital capacity of MSMEs through PT Telkom Indonesia's CSR program. The analysis focuses on non-formal education as a means of enhancing MSME capacity in bridging the digital learning gap. This study aims to gain insight into how non-formal education plays a role in the digitalization of MSMEs through corporate CSR.

2. RESEARCH METHOD

This article uses a qualitative descriptive approach with the main focus on data collection through literature studies (*library research*) as a research methodology. Snyder (2019, in Susilo et al, 2026) states that literature study is a research methodology conducted by collecting and taking the essence of previous research and analyzing several summaries written in the text. Data sources are obtained from various literature, such as scientific articles, journals, and relevant written works. The data collection technique used is documentation, namely by reviewing and analyzing written documents, archives, activity reports, regulations, and various other written sources (Bowen, in Marifah et al, 2026). In addition, this article also utilizes the results of previous research to gain a deep and comprehensive understanding. Through this literature analysis, this study examines various non-formal education programs as an increase in the digital capacity of MSMEs through PT Telkom Indonesia's CSR program.

3. RESULTS AND DISCUSSION.

CSR is an integral part of a company's business strategy. CSR implementation focuses on socio-economic and environmental impacts, which simultaneously strive to improve its image in the community. Research by Ramadhani et al. (2026) shows that CSR implementation provides benefits to the community in the form of improving partner welfare, empowering MSMEs, and increasing environmental awareness. This aligns with research by Siregar et al. (2026), which shows that CSR implementation positively impacts a company's image by shaping positive perceptions and enhancing its credibility. Furthermore, CSR implementation has various focuses, in this case, focusing on increasing the digital capacity of MSMEs. Based on research by Mustangin (2021), increasing MSME capacity influences competencies related to technology development for business growth, as well as non-formal educational activities addressing the needs of MSME participants with a focus on technology, which can make MSMEs technologically literate and enable them to advance their MSMEs. Non-formal education for MSMEs through Telkom's CSR is divided into three aspects, as follows:

1. The Role of Non-formal Education at the Individual Level through Training

According to Lall & Sharma (2009, in Wibowo, 2017), training is defined as the acquisition of knowledge, skills, and abilities through professional development programs. Training with tailored themes is considered capable of improving the adaptation of MSMEs to economic changes. Research by Ramadhani (2026) shows that Gojek's CSR program, Gojek Entrepreneurship, provides broader market access for MSMEs, and partnerships with drivers also open up job opportunities for the community. This is in line with the provision of training that provides basic knowledge so that MSMEs can increase the scale of their businesses and expand their markets.

PT Telkom Indonesia, in its CSR program, also plays a role in implementing relevant and effective needs-based training, for example, training on digital marketing, which is carried out in stages, starting with an introduction to the basics of digitalization, training on digital *marketing* (intermediate level), and more advanced training *advance* next. Likewise, with the theme *social-commerce*. This training is being implemented in stages. In addition to this training, business management and branding training are also provided for MSMEs. This training demonstrates Telkom's CSR efforts to increase the capacity of MSMEs.

Furthermore, in Bandung Regency, Telkom is collaborating with academics, specifically university lecturers, to develop and accelerate the growth of MSMEs towards resilience and independence, by collaborating with them to provide training on developing MSME capacity (Rumah BUMN Telkom Banjaran, 2024). Furthermore, as a resource person, *e-commerce*. There are TikTok Shop and Grab Merchant practitioners. Furthermore, they are collaborating with the sub-districts of Pameungpeuk, Banjaran, Pasirjambu, and Pangalengan to provide MSME training on technical skills (crafts) and materials (4Go).

This training is intended to be a non-formal education strategy that plays a role in building digital literacy, strengthening individual capacity, and encouraging the independence of MSMEs in navigating the dynamics of the digital economy. This role is a crucial foundation in the empowerment process, as business transformation fundamentally begins with the transformation of the individual capacity of the entrepreneur. This aligns with research conducted by Wibowo (2017) that suggests that training with developmental objectives specifically focuses on developing attitudes, work ethic, a drive to achieve, and a determination to perform at their best in the workplace.

2. The Role of Non-Formal Education at the Business Level through Mentoring

Mentoring is provided to complement existing training. Research conducted by Nasriyati et al. (2021) found that the Sekar Tanjung Batik Group's CSR program, FT Tuban, provided comprehensive training, complemented by capital provision, capacity-building training for members, infrastructure development, and the provision of supporting facilities and infrastructure for batik production. Therefore, mentoring serves as a bridge between administrative understanding and literacy, thus optimizing business development.

In the context of MSMEs, mentoring is crucial because business actors require not only increased digital capacity but also support in fulfilling business legal requirements to provide legal certainty and increase product credibility in the eyes of consumers (Susilo and Ilham, 2024). The relatively complex legal registration process often presents a challenge for MSMEs (Fadhil et al., 2024). Therefore, without adequate mentoring, business actors risk delays in accessing market opportunities, including integration into digital platforms.

Similarly, based on the Telkom Banjaran State-Owned Enterprises House Report (2024), Telkom's MSME development through its CSR program includes product standardization (halal certification and nutritional standards) and business legality (Business Identification Number/NIB, and Household Industrial Food/PIRT). This aligns with the situation of MSMEs to support the use of digital technology in business operations and encourages MSMEs to adopt digitalization as part of their business activities (Khatori, et al, 2026). Furthermore, there is assistance for packaging improvements through packaging design training and a packaging grant program. Simple product packaging that lacks a modern appearance affects aesthetic value and consumer appeal (Vilanti, et al, 2026).

Mentoring also serves as a bridge between individual capacity building and strengthening business structures. Therefore, non-formal education practices, such as mentoring MSMEs on business standardization and legality, strengthen business identity through packaging branding to support adaptation to digital adoption.

3. The Role of Non-Formal Education in Encouraging Digital Adaptation

In this digital era, adaptability is essential for MSMEs. Access to digitalization can be understood as an educational process that encourages changes in business behavior toward more adaptive and technology-based models (Nasution et al., 2026). Non-formal education plays a role in developing digital literacy, encompassing the technical use of digital devices and an understanding of digital marketing.

Digital platforms such as social media and *marketplace* Encourage increased visibility of local products and open access to a wider market (Nasution et al., 2026). This aligns with the PaDi UMKM platform, a collaboration between Telkom and the Ministry of State-Owned Enterprises. This provides benefits in expanding market access, clear transparency, credibility that meets standards, and a guaranteed secure payment system (Fatmarani, 2025). These digitalization efforts are complemented by outreach, training, and mentoring on the topic of digitalization. Furthermore, digital access platforms such as Indibiz and Telkomsel Orbit support internet connectivity to a wide range of users. This aligns with research by Nasution et al. (2026) on increasing digital literacy and utilizing digital platforms for *e-commerce*. *Optimizing* social media as a marketing tool correlates with increased sales, operational efficiency, and expanded market reach. Therefore, access to technology, complemented by training and mentoring, creates a learning ecosystem that encourages increased digital literacy and strengthens the competitiveness of MSMEs. This is a key role for non-formal education in MSME digitalization.

4. CONCLUSION

Based on the results of the study, non-formal education in the digital capacity of MSMEs through PT Telkom Indonesia's CSR program shows that digital implementation is not only understood as the use of technology, but as a process of strengthening capacity integrated with business development. The implementation of CSR carried out through training, mentoring, standardization, and business legality, and expanding access to digital platforms form a comprehensive approach to non-formal education practices in improving the capabilities and competitiveness of MSMEs.

The findings of this study indicate that non-formal education is an important learning tool in supporting the development of MSMEs when accompanied by strengthening aspects of governance, digital literacy, and market access through training, business mentoring, and the use of digital technology access. Non-formal education through training plays a role in increasing the capacity of MSMEs' human resources, non-formal education through business mentoring supports the strengthening of business management and development,

while non-formal education through digitalization access becomes a means to increase the competitiveness of MSMEs in the digital era. Thus, Telkom's CSR program can be understood as a non-formal education practice that plays a role in strengthening the digital capacity of MSMEs.

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