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Digital literacy model to improve the marketing skills of micro, small, and medium enterprises women with a community-based educational approach

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ABSTRACT

Women in Micro, Small, and Medium Enterprises (MSMEs) often need help marketing their products or services, including limited access to resources for promotion and distribution. Restricted accessibility and a lack of understanding of digital technology are significant barriers limiting their marketing potential. Digital literacy becomes a crucial element that can change the paradigm and open opportunities for women MSMEs to overcome these challenges. This study aims to understand the experiences and skills of women MSMEs in applying digital literacy and propose a community-based education model to enhance marketing capabilities. This study uses a qualitative approach with a case study method. A total of 15 informants from the MSME community members of the Indonesian Muslim Entrepreneurs Association (IPMI) Palembang were selected based on inclusion criteria, including experience in the MSME business, a minimum education level of high school, and active involvement in marketing activities. Data were collected through in-depth interviews with an interview guide covering themes of digital literacy and marketing skills. Most respondents have a low level of digital literacy and limitations in using digital technology for business. The main challenges faced are difficulties adapting to digital technology and concerns about digital security. Most respondents still rely on conventional marketing methods and feel less confident managing digital marketing campaigns. Digital literacy and marketing skills remain significant challenges for women MSMEs in Palembang. A community-based education model is needed to overcome these obstacles, including digital literacy workshops, mentor-mentee programs, experience-sharing sessions, and specific skills training.



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Introduction

Women in Micro, Small, and Medium Enterprises (MSMEs) often face various challenges in marketing their products or services (Shaikh, 2020). These challenges include limited resource access, particularly in promotion and distribution (Sultan & Sultan, 2020; Laberinto Solina, 2020). Women MSMEs often need help establishing and maintaining an online presence due to several specific issues. First, inadequate digital literacy is challenged, which hinders their ability to use digital marketing tools effectively (Rahayu et al., 2023). This lack of digital skills can result in better online visibility and effective use of social media platforms, reducing customer reach

and engagement. Second, the increasing competition in the global market poses a significant threat, as women MSMEs often need more advanced marketing strategies employed by larger competitors (Afenyo-Agbe et al., 2021). Additionally, logistical challenges, such as high shipping costs and complicated distribution networks, can impede their ability to reach broader markets. Furthermore, cultural and societal barriers often limit women's access to business networks and mentorship opportunities, which are crucial for growth and sustainability. These combined challenges can lead to significant impacts, such as reduced sales, difficulty scaling operations, and overall business stagnation. In this context, digital literacy is a critical element that can transform these limitations into opportunities, enabling women MSMEs to navigate and leverage online platforms effectively, understand digital consumer behavior, and ultimately expand their market reach (Yadav et al., 2023; Mohamad Bastomi et al., 2023). Digital literacy involves understanding and operating skills in a digital environment (Kateryna et al., 2020). In a marketing context, digital literacy is the key to designing effective campaigns (Handa & Gupta, 2020), using online platforms smartly (Neumeyer et al., 2021), and understanding consumer behavior (Guess & Munger, 2023). Digital literacy skills provide a competitive advantage by enabling women MSMEs to utilize online platforms, understand digital consumer behavior, and significantly expand their market reach (Susanti et al., 2023). Therefore, understanding and mastering digital literacy is essential in increasing women's marketing capacity in MSMEs and moving their business growth to a higher level. To adapt to technological developments, they learn autodidactically without guidance. Occasionally, ask fellow entrepreneurs in a community where they are part of it. Some entrepreneurs join a community to support the progress of their business. The community is significant for women MSMEs as it provides social support, shared experiences, and access to local resources that strengthen their business networks. Through collaboration in the community, MSME women can improve their skills, gain market insight, and expand marketing opportunities.

Community-based education is essential in the context of digital literacy skills for MSME women. Article 55 of Law No. 20 of 2003 concerning the National Education System stipulates community-based education as providing education that accommodates society's unique religious, social, and cultural aspirations and potential as an educational effort carried out by and for the community. In this context, education originates from the community as a solution to their needs, is carried out by the community as educational actors, and involves active community participation in designing and overcoming their problems. (Purnomo & Solikhah, 2021). This approach allows skills development according to local needs, accommodating the unique challenges women MSMEs face in digital marketing. By actively involving the community, community-based education strengthens digital literacy, builds supportive networks, promotes collaboration, and holistically empowers MSME women. Anwar & Shawmi (2023) His research found that community-based education increases empowerment to utilize local potential. A study in Kenya involving 252 women from five sub-districts who were members of self-help groups in Nyamira district found that community-based education increased women's active participation in entrepreneurial learning activities. (Moreka, 2019).

Until now, little research has examined MSME women with digital literacy and marketing skills and their models. Idawati et al. (2016) They researched South Sulawesi involving 25 women entrepreneurs to assess the training model's effectiveness in increasing community-based entrepreneurial capacity. The method used is research and development, which has five stages: analysis, design, development, implementation, and evaluation. The research results showed that this model received a good response from the facilitator and increased the participants' entrepreneurial abilities. However, this research did not study the participants' baseline abilities or explain the educational methods used in the training program. Next, Widiawati & Nursyamsi (2022) They researched how MSME women can know and use social media to support the sustainability of their businesses. This research uses a qualitative approach accompanied by a proposed model in the form of Participatory Action Research and Focus Group Discussion to improve the ability of MSME women to utilize social media for their business. Unfortunately, the proposed model does not explicitly explain how the details of efforts to help women learn how to use social media relate to data security and marketing. The difference with this research is that we explored the baseline of MSME women regarding their digital literacy skills and experience marketing products, followed by a proposal for a community-based education model. The uniqueness of our model is that it empowers the community as a basis for education. We designed four learning methods that optimize interactions between members to collaborate. Didham & Ofei-Manu (2015) Community-based education produces potential conditions for building practical learning situations regarding initiatives to create sustainable new skills. Interaction between members is conducive to collaborating in various fields of knowledge, giving each other feedback quickly in solving actual problems, and self-reflection by expressing opinions. (Karasik & Hafner, 2021).

This research aims to understand the experiences and skills of MSME women implementing digital literacy and proposes an educational model for increasing community-based marketing capabilities. This research has significant implications in education and academia because it provides a foundation for developing a digital literacy model that can be applied in community education. Implementing this model can help improve the

marketing skills of women's MSMEs, thereby supporting local economic development. In addition, these findings can provide a basis for developing more effective teaching methods for improving digital and marketing skills at the academic level, especially in the context of MSME and digital literacy training.

Method

This research adopts a qualitative approach with a case study method to explore in-depth understanding. (Alam, 2021) Regarding digital literacy and marketing skills. This research involved 15 informants from the MSME Community who are members of the Palembang region's Indonesian Muslim Entrepreneurs Association. The selection of these 15 informants was based on specific inclusion criteria to ensure their relevance and importance to the study. The inclusion criteria included experience in the MSME business, which provided valuable insights into the practical challenges and opportunities in digital literacy and marketing within this context. Ensuring a minimum high school education level was necessary to guarantee that informants had the foundational skills to engage with digital platforms and comprehend marketing concepts. Additionally, informants who were actively involved in marketing their products or services were chosen to provide detailed and relevant experiences related to the study's focus on digital literacy and marketing skills. These inclusion criteria were selected to ensure diverse experiences and knowledge appropriate to digital literacy and marketing skills. By selecting informants who met these criteria, the research aims to capture a comprehensive understanding of the issues at hand, reflecting the diversity within the women's MSME community in Palembang. The selection of 15 informants was deemed sufficient to achieve data saturation, ensuring that the study's findings are robust and representative of the studied population.

Data collection was carried out through in-depth interviews with community members who were selected to be research informants. Researchers used an interview guide consisting of two themes: digital literacy and marketing skills. Each of these themes includes indicators that are realized in the form of the following questions:

Table 1. Interview Indicators of Digital Literacy and Marketing Skills

| Theme | Indicator | Question |
|------------------|-----------------------------|---|
| Digital Literacy | Digital Literacy Experience | 1. How often do you use digital technology in your business operations? |
| | | 2. What digital tools or platforms do you use most often? |
| | | 3. How did you learn about using digital technology for marketing? |
| | Digital Literacy Challenge | 4. What obstacles or challenges do you face in understanding and adopting digital literacy? |
| | | 5. Do you feel you sufficiently understand digital security in a marketing context? |
| Marketing Skills | Marketing Experience | 6. How do you execute a marketing strategy for your product or service? |
| | | 7. What has been the most effective marketing strategy for your business? |
| | Mastery of marketing skills | 8. To what extent do you feel confident managing digital marketing campaigns? |
| | | 9. What digital marketing skills have you mastered well? |

In the ethical aspect of research, researchers apply the main principles of respecting the rights and privacy of informants. This involves fair and honest treatment of each individual who is an informant in this research. In the initial stage, researchers will carry out procedures to obtain written permission before conducting interviews or observations. This permission is not just an act of formality but rather a form of respect for the participant's right to privacy and decision. Researchers will explain the research aims transparently, provide information about how the data will be used and stored, and provide assurance that participants' identities will be kept confidential.

Data analysis was carried out qualitatively using a thematic approach, which allows for identifying patterns, themes, and relationships that emerge in the data. The analysis process began with transcribing the interviews, followed by the following steps to ensure the transparency and credibility of the research. The interview transcripts were read multiple times to thoroughly understand the content and context. Then, the coding process was conducted, where relevant pieces of data were labeled according to emerging themes or categories. This process involved marking words, phrases, or sentences that described essential concepts related to digital literacy and marketing skills. These codes were grouped into broader themes based on their similarities and

interconnections. The themes were grouped iteratively, with frequent revisits to the original data to ensure that the identified themes accurately represented the collected data. For example, themes such as "challenges in adapting to technology," "decline in sales," and "digital marketing strategies" were identified and further analyzed to see how they related to each other and the research objectives. Once the main themes were determined, a comparison of interview results between informants was conducted to obtain an in-depth and holistic understanding of the marketing skills of MSME community members. This comparison helped identify common patterns and significant differences in the informants' experiences and perspectives regarding digital literacy and marketing skills.

Finally, the description of these skills was used to present a model designed to improve the marketing skills of MSME women in the Indonesian Muslim entrepreneur community in the Palembang region through the Indonesian Muslim Entrepreneurs Association. This model includes practical steps and recommendations that can be applied in the community context to enhance digital literacy and marketing skills.

Results and Discussions

Of the 15 respondents involved in this research, 80% had an education level of at least high school, indicating a relatively homogeneous level of education among community members. This homogeneity in education level may limit the generalizability of the findings as they need to capture the perspectives of individuals with varying educational backgrounds. Regarding business experience, around 60% of respondents have less than five years of MSME business experience, while another 40% have been involved for more than five years. This difference in business experience provides some variation in terms of business background. However, including respondents with broader business experience, such as those with more than ten years in the field or those just starting, would provide a more comprehensive view of the MSME community. Interestingly, 75% of respondents actively engage in marketing activities, such as training, workshops, or marketing events. This diversity in levels of involvement shows that most members of the Indonesian Muslim Entrepreneurs Association Palembang are actively developing their marketing skills. Nevertheless, future research should strive to include respondents with varying degrees of involvement in marketing activities to capture a broader spectrum of experiences and skill levels.

Digital Literacy

Based on a series of in-depth interviews with members of the MSME Community under the Palembang Indonesian Muslim Entrepreneurs Association, most respondents have a low or limited level of digital literacy experience. The following is an interpretation of several interview results that reflect the characteristics of the majority of community members with little understanding of digital literacy:

"... I have to admit that I still have difficulty with digital literacy. I have never used social media to market my products. I feel left behind when my friends talk about online marketing applications. I don't know much about SEO or how to analyze data to increase sales..." (Ad informant, 35 years old)

"... I recently tried using an e-commerce platform, but I am still confused about its features. For me, digital literacy is a challenge. Learning about technology is difficult, especially for a small business like mine. I want to understand more, but it feels like a new world for me..." (Informant Cs, 39 years old)

"... The digital platforms I use are minimal. I only have an email and WhatsApp account to communicate with customers. The rest, I don't understand. I once tried looking for online tutorials, but sometimes, I was still confused. The lack of understanding made me doubt to get involved more deeply..." (Informant Rd, 32 years old)

Furthermore, research interview results show that many respondents face challenges in using digital technology, especially in terms of difficulty adapting and understanding complex features. There are concerns regarding digital security issues, and most respondents feel the need to increase their understanding of online business data protection measures. From this, it can be identified that digital literacy challenges involve technical aspects and security, which must be considered.

"... Often I face challenges when trying to use digital technology. For example, difficulties in accessing e-commerce platforms or sending online messages. Sometimes, I feel awkward with technology..." (Informant BH, 39 years old)

"... I know that digital security is important, but I don't fully understand how to protect my business from potential risks. I still need to learn more about this aspect..." (Informant As, 42 years old)

The facts above show that digital literacy is still a significant challenge among members of the MSME Community under the Palembang Indonesian Muslim Entrepreneurs Association. Most respondents acknowledged their limitations in using digital technology in business operations and marketing. Some even feel awkward and sometimes need to adapt to new platforms or features. Regarding digital security, the concerns expressed by respondents reflect the urgent need to increase understanding of online business data protection measures. This shows that security and understanding technology are also crucial in digital literacy. (Neumeyer et al., 2020). Women's low digital literacy among MSMEs can be attributed to several critical factors, including limited access to adequate infrastructure, insufficient education and training, and high financial challenges in adopting technology (Neumeyer et al., 2020). These factors hinder their ability to integrate digital technology effectively into their business strategies. Concrete strategies proposed to address these issues include practical and accessible training programs specifically tailored to enhance digital literacy among women MSMEs. Additionally, efforts are needed to expand access to necessary digital infrastructure, such as affordable internet connectivity and supportive hardware. Collaboration among business communities, government entities, and educational institutions is also crucial to creating an enabling environment for improving digital literacy. This involves facilitating knowledge and experience exchange among business stakeholders.

In addition to operational challenges, the survey revealed a noteworthy concern among respondents regarding digital security. This aspect is a crucial component of digital literacy, as it reflects the necessity for a heightened understanding of online business data protection measures. (Boerman et al., 2021). The increasing reliance on digital platforms for various business functions underscores the urgency of equipping entrepreneurs with the knowledge and tools required to safeguard their online presence effectively.

To delve deeper into the issue, it is essential to acknowledge the broader implications of the findings. The connection between security and technological comprehension highlights the multifaceted nature of digital literacy. Concerted efforts from various stakeholders, including the business community, government, and educational institutions, are imperative to fortify the MSME community in Palembang. By collaboratively providing targeted support and training programs, these entities can empower MSME members to harness the full potential of digital technology while navigating the intricacies of security measures.

Marketing Skills

In-depth interviews will be conducted to deepen marketing skills and experience among members of the Palembang Indonesian Muslim Entrepreneurs Association who are part of the MSME Community. A series of in-depth interviews will be completed, and several in-depth interviews will be conducted. This series of interviews aims to understand further how the community members who are informants for this research carry out marketing strategies and determine what marketing strategies have proven to be the most effective for their businesses.

"... For product marketing, I still rely on conventional methods such as brochures, pamphlets, and print advertisements. I must admit that my understanding of digital technology is still limited, so I haven't entered the world of online marketing..." (Informant Ag, 29 years old)

" ... The marketing strategy I have found to be most effective is participating in local exhibitions and community events. I am more comfortable interacting directly with potential customers and explaining products face-to-face. Unfortunately, I have not understood the ins and outs of social media or website creation business..." (Informant Ss, 40 years old)

The interview results reveal that MSME women continue to rely on conventional marketing skills due to obstacles in understanding digital technology. Even though they possess knowledge of online marketing, the need for more understanding hinders incorporating digital marketing strategies into their businesses. MSME women acknowledge the importance of adapting to technological advancements but are constrained by the high level of digital complexity (Sultan & Sultan, 2020).

There is a clear need for efforts and approaches that support the enhancement of digital literacy among community members. Training programs, workshops, and educational resources that provide a deeper understanding of digital tools and techniques can help overcome the barrier to digital learning and enable the adoption of digital marketing strategies. (Meng et al., 2021). Additionally, a collaborative approach involving industry players, government, and educational institutions will be crucial in creating an environment that fosters the growth of digital literacy among MSMEs (Chen et al., 2021). By delving deeper into these challenges, it becomes evident that mastering digital marketing skills can unlock new opportunities and enhance the competitiveness of MSMEs. Therefore, initiatives to improve digital literacy need to be strengthened by providing easily accessible and relevant resources while promoting sustainability in learning. This way, MSMEs

will not only be able to overcome existing barriers but also leverage the full potential of digital technology to expand their market reach and enhance the sustainability of their businesses.

Community-Based Model Design: Improving the Marketing Skills of MSME Women In Indonesian Muslim Entrepreneurs Association Palembang

Reviewing the data collection results on the level of understanding and experience related to digital literacy, which is still low and limited, and marketing skills in the conventional realm, the researchers formulated a community-based model to improve the marketing skills of MSME women in Indonesian Muslim Entrepreneurs Association Palembang. This model aims to strengthen digital literacy and increase the effectiveness of marketing strategies in the context of micro, small, and medium businesses.

Digital Literacy Workshop

The Digital Literacy Workshop aims to increase understanding and mastery of digital tools in marketing, involving intensive training related to the use of digital platforms and sessions on understanding digital security. Measured indicators of success include an increased understanding of digital tools and increased levels of digital security in platform use. This workshop is strengthened by related research that shows that increasing digital literacy contributes positively to the effectiveness of using digital technology in various contexts, including the business world. For example, research by Ervianti et al. (2023) Found that increasing digital literacy can strengthen online participation, positively impacting engagement in digital platforms. Apart from that, digital security theory is also an essential foundation for sessions on understanding digital security. According to Moustafa et al. (2021) Individual attitudes and behaviors towards digital security play an important role in reducing security risks. Their research shows that increasing awareness and understanding of security risks can improve online protective measures.

Mentor-Mentee Program

The Mentor-Mentee Program is a collaborative initiative to strengthen cooperation between experienced members and members requiring unique marketing guidance. By assigning mentors to members with advanced marketing skills, the program offers members who need guidance the opportunity to gain deeper insight and insight. The integrated consultation sessions in this program allow for direct interaction between mentor and mentee. In these sessions, mentees can present their challenges and questions while mentors provide insights, suggestions, and practical experiences that can guide mentees toward improving their marketing skills. Marketing strategy discussions are the main focus of these sessions, allowing for an exchange of ideas and a deeper understanding of best practices in marketing (Saran et al., 2024).

The program's success is measured through improvements in the mentee's marketing skills that can be identified through concrete results, such as improvements in marketing strategy development, increased use of digital tools, or positive results in marketing campaigns. Apart from that, forming a support network between members is an essential indicator for assessing the program's positive impact, where mentees can feel continuous support and guidance from mentors and fellow mentees. Research by Moustafa et al. (2021) It has highlighted that mentor-mentee programs can significantly improve individual skills by transferring knowledge and hands-on experience.

Sharing Session and Best Practices

Sharing Session and Best Practices is a program designed to facilitate the exchange of experiences and marketing strategies that have proven successful among Palembang Indonesian Muslim Entrepreneurs Association members. This program integrates two key elements: group discussion sessions and best practices presentations. In group discussion sessions, community members have the opportunity to share their own marketing experiences. Through open dialogue, members can gain first-hand insight into their peers' strategies to increase their businesses' visibility and marketing success. These group discussions create an environment that supports the exchange of thoughts and ideas, providing a platform for members to learn from the successes and failures of their peers.

Meanwhile, presentations of best practices from successful members add an inspirational and educational dimension to this program. Members who have succeeded in marketing share deep insights into the strategies that took them to the top. These concrete examples of best practice implementation provide an accurate picture of how specific strategies can be adapted and implemented in different business contexts. The theory that supports this program is knowledge exchange theory, which emphasizes the importance of exchanging knowledge and experience as a catalyst for growth and innovation in a business community. Research by Singh et al. (2021) Shows that knowledge exchange between members can strengthen individual and organizational performance.

Specific Skills Training

The Specific Skills Training Program represents a strategic and targeted initiative to enhance skills crucial to effective marketing, including graphic design, copywriting, and data analysis. By concentrating on developing these particular skills, the program seeks to empower members of the MSME Community affiliated with the Palembang Indonesian Muslim Entrepreneurs Association, enabling them to excel in addressing marketing challenges within the digital era. This tailored approach is designed to allow community members to participate in intensive training sessions that align with their skill needs. The program's structure will enable members to sharpen their graphic design, copywriting, and data analysis abilities, tailoring their skill set to support their product or service marketing endeavors specifically. Through hands-on training, participants gain practical insights and proficiency in applying these skills to real-world marketing scenarios. The effectiveness of skill acquisition is further measured through marketing projects undertaken by program participants, creating tangible opportunities for members to apply the concepts and techniques they have learned.

This initiative is rooted in skills theory, emphasizing the importance of developing specific skills to enhance individual and organizational performance. Research conducted by Garavan et al. (2021) substantiates the efficacy of specific skills training, demonstrating a significant improvement in performance in tasks requiring the honed skills. By incorporating this evidence-based approach, the Specific Skills Training Program addresses the immediate needs of MSME members. It aligns with proven methodologies for skill development that contribute to enhanced overall performance in the evolving digital marketing landscape. Research by Garavan et al. (2021) Demonstrated that specific skills training significantly improves performance in tasks requiring those skills. In detail, the stages of each step are depicted in the following chart:

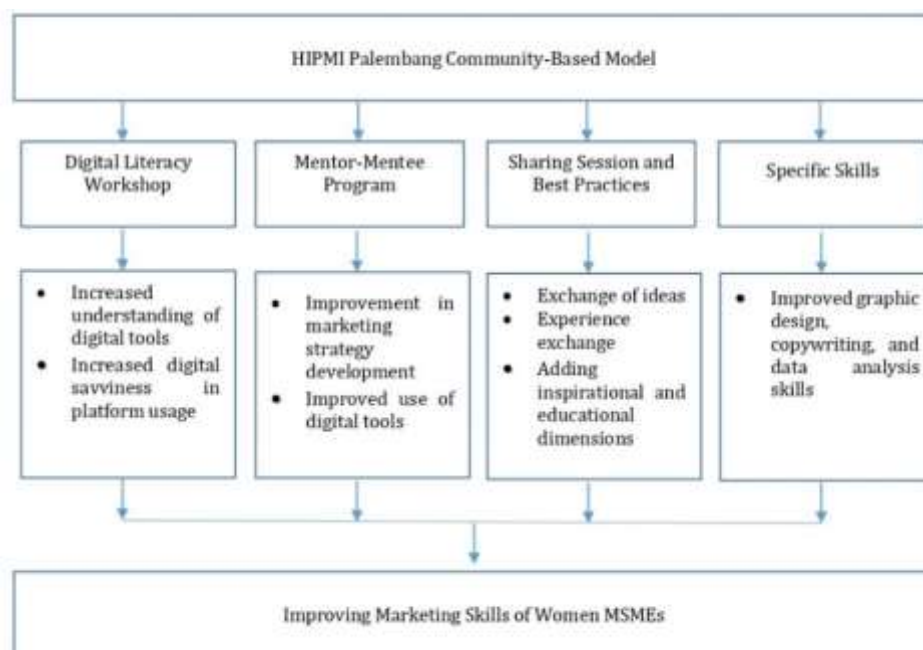


Figure 1 <Digital Literacy Model to Improve the Marketing Skills of MSME Women with a Community-Based Educational Approach>

However, this study has several limitations that need to be considered. First, the participants are limited to the Palembang Indonesian Muslim Entrepreneurs Association Community members, so the generalization of findings must be made cautiously. Second, external factors such as changes in market trends or economic conditions can influence research results. Finally, the qualitative aspect of this study does not allow for in-depth causal analysis.

Further research can involve more MSME communities and expand the study area to various regions. Additional research can also deepen aspects of engagement in digital marketing and its implications for business growth. Additionally, considering the impact of new technologies and digital marketing trends that may emerge in the next few years can be an exciting research focus. Further research could also integrate quantitative approaches to strengthen the validity of the findings. By doing this, it is hoped that future research can significantly contribute to developing effective marketing strategies for MSMEs in the ever-growing digital era.

Conclusions

This research reveals that most members of the MSME Community under the Palembang Indonesian Muslim Entrepreneurs Association have an education level of at least high school, with the majority having business experience of less than five years. Interviews show that digital literacy and marketing skills still need to improve, with respondents facing difficulties in adopting digital technologies and concerns regarding security. Therefore, efforts are required to improve digital literacy and marketing skills through community-based models, including workshops, mentor-mentee programs, sharing sessions and best practices, and specific skills training. However, this study has limitations and suggests further research to obtain a more comprehensive picture.

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