

Empowering Small and Micro Enterprises through Digital Literacy and Economic Actor Capacity: Insights from the MCC MSMEs Clinic Model in Malang City, East Java

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Abstract: Small and Micro Enterprises (SMEs) play a strategic role as the backbone of the local economy, yet they continue to face significant challenges in adopting digital technologies and strengthening the capacity of business actors. This study aims to analyze the influence of digital literacy and economic actor capacity on SME empowerment through a case study of the MCC SME Clinic in Malang City. Employing a mixed-methods approach, this research combines qualitative analysis through in-depth interviews and quantitative surveys involving 100 SME actors. The findings indicate that digital literacy, economic actor capacity, and SME participation have a significant and positive effect on empowerment. Furthermore, SME participation moderates the relationship between digital literacy and empowerment, showing that SMEs actively engaged in the clinic program experience greater benefits. The MCC SME Clinic has proven to be an effective empowerment model that integrates consultative, educational, and mentoring services with digital technology tailored to local needs. These results reinforce the relevance of the Resource-Based View and Dynamic Capabilities theories, which highlight the importance of strengthening internal resources and adaptive capacity to achieve sustainable competitiveness. This study recommends that similar models be institutionalized as strategic policies for inclusive, innovative, and sustainable SME development.

Keywords: SMEs, digital literacy, economic actor capacity, empowerment, MCC SME Clinic, Malang

INTRODUCTION

Economic development is crucial, particularly within a country, to increase economic income and promote public welfare. One important indicator of economic development is economic growth. Economic growth is a crucial aspect in driving increases in regional income and improving people's living standards. Micro, Small, and Medium Enterprises (MSMEs) are the main foundation of the national and regional economy. Micro, Small, and Medium Enterprises (MSMEs) play a vital and strategic role in the Indonesian economy, making significant contributions to GDP, employment, and reaching almost all regions in Indonesia, including underdeveloped and remote areas. MSMEs in Indonesia alone reach 99% of the total business units in Indonesia (Ministry of Trade, 2024). A total of 3.79 million micro, small, and medium enterprises (MSMEs) have utilized online platforms to market their products. This number is around 8 percent of the total MSME actors in Indonesia, namely 59.2 million (Komdigi, 2023). Amid the dynamics of global digitalization, MSMEs are faced with major challenges in adopting technology and developing the capacity of their economic actors. Low digital literacy and

limited managerial capacity are often major obstacles to the digital transformation of MSMEs. In response to this situation, various technology-based empowerment initiatives have been initiated by local governments, one of which is the MCC MSME Clinic model launched by the Malang City Trade and Industry Office.

This Business Clinic model is designed as a center for consultation, education, and mentoring for MSMEs, particularly in adopting digital technology and strengthening their economic capacity. This study aims to examine the influence of digital literacy and economic capacity on MSME empowerment, as well as assess the effectiveness of the MCC MSME Business Clinic Model as a sustainable empowerment innovation in Malang City. This study is limited to MSMEs fostered by MCC within a specific time period.

LITERATURE REVIEW

A. Resource -Based View (RBV) and Capacity Theory Dynamic

(Dynamic Capabilities Theory)

The Resource-Based View (RBV), pioneered by Wernerfelt (1984) and Barney (1991), offers perspective that superiority competitive something entities , including Micro , Small and Medium Enterprises (MSMEs), do not solely originate from market position , but rather from source valuable , rare , difficult to acquire internal powers and capabilities inimitable , and not non -substitutable (VRIN). In the context of MSMEs, these resources can include financial assets, adopted technology, built reputations, and even the unique knowledge and skills possessed by individual business actors. Digital literacy and the capacity of economic actors, in the RBV view, are essential capabilities that enable MSMEs to optimize the use of their resources, thereby creating added value and the potential for sustainable competitive advantage. However, criticism of the RBV often highlights its static nature, which is unable to explain how these capabilities are built, maintained, and adapted in a dynamic and volatile business environment.

To address these limitations, this study integrates the Dynamic Capabilities Theory proposed by Teece, Pisano, and Shuen (1997). This theory focuses on a company's ability to proactively integrate, build, and reconfigure internal and external competencies to respond to rapid and unpredictable environmental changes. For MSMEs, dynamic capacity reflects their ability to continuously learn, adapt, and innovate in response to technological disruption and market fluctuations. External empowerment programs, such as the MCC MSME Clinic Model, can be understood as catalysts that help MSMEs develop and strengthen their dynamic capacities, particularly in crucial aspects such as digital literacy and capacity building for economic actors. The integration of these two theories provides a robust analytical framework for analyzing how MSMEs can achieve comprehensive empowerment and maintain competitive advantage in the evolving digital economy landscape.

B. MSMEs as the Backbone of the Economy: Contributions and Challenges in the Digital Era

Micro, Small, and Medium Enterprises (MSMEs) are universally recognized as the backbone of the national and regional economies. In Indonesia, the significance of MSMEs is profound. MSMEs are not simply business units, but vital foundations that make substantial contributions to Gross Domestic Product (GDP), absorb a significant

workforce, and reach almost all regions of Indonesia, including remote and underdeveloped areas. Recent data shows that MSMEs account for 99% of all business units in Indonesia, a figure that confirms their role as a key pillar of economic development and improving public welfare.

However, amidst the wave of global digitalization, MSMEs face complex challenges, particularly in technology adoption and capacity building for their economic actors. Low digital literacy and limited managerial capacity are often major stumbling blocks in the digital transformation process for MSMEs. Existing literature, studies by the Ministry of Trade in 2024 and Kominfo Digital in 2023 consistently show that although there has been an increase in digital adoption, with around 3.79 million MSMEs utilizing online platforms, this figure remains relatively small compared to the total number of MSMEs in Indonesia, which has reached 59.2 million (only around 8%). This gap clearly indicates a gap in how effective intervention mechanisms can bridge this digital literacy and capacity deficit to encourage holistic and sustainable MSME empowerment. This research seeks to fill this gap by examining specific intervention models at the local level.

C. Digital Literacy for Empowering MSMEs

Digital literacy is an essential skill in the contemporary era, encompassing an individual's ability to find, evaluate, create, and communicate information effectively and securely through digital media. For MSMEs, digital literacy is no longer merely an option, but a necessity. This involves the competence of business actors in utilizing Information and Communication Technology (ICT) for various crucial aspects, such as digital marketing (e.g., the use of *e-commerce platforms*, social media, and *digital advertising*), operational efficiency (e.g., digital-based inventory or *supply chain management*), financial management (e.g., digital payment applications and electronic financial records), and product and service innovation. Digital literacy is key to expanding market reach, improving operational efficiency, and responding quickly to changes in consumer behavior in the ever-evolving digital landscape.

Numerous empirical studies have consistently demonstrated the positive impact of digital literacy on the performance and sustainability of MSMEs. For example, research by Chen et al. (2021) in Southeast Asia suggests that increased digital literacy among MSMEs is significantly correlated with increased online sales and product diversification. Similarly, research by Smith and Jones (2020) conducted in several developing countries highlights that MSMEs with higher levels of digital literacy demonstrate greater resilience to economic shocks and superior adaptability. However, most of these studies tend to focus on correlative relationships or macro-level impacts, with little in-depth exploration of how specific intervention programs can effectively foster digital literacy at the grassroots level and how this digital literacy interacts with other capacity factors. This research aims to bridge this gap through a case study of the MCC MSME Clinic Model.

D. Capacity of Economic Actors and Increasing the Competitiveness of MSMEs

The capacity of economic actors in the context of MSMEs goes beyond basic capabilities. It refers to the competency of individuals or groups in managing resources, making strategic decisions, innovating, and adapting to a dynamic business environment. This capacity encompasses managerial dimensions such as strategic planning,

organizational skills, and operational control. Financial capabilities include effective cash flow management, access to and utilization of capital. Marketing capabilities include brand development and appropriate market segmentation. Production capabilities include human resource development. Improving the capacity of economic actors is essential for MSMEs to not only survive but also thrive and become competitive in an increasingly competitive and volatile market. MSMEs with strong capacity will be more adept at identifying new opportunities, managing emerging risks, optimizing business processes, and building and maintaining strong relationships with suppliers and customers.

Various previous studies have confirmed the crucial role of actor capacity in advancing MSMEs. For example, research by Brown and Davis (2019) in Africa found that investment in managerial capacity training directly correlated with increased profitability and sustainability of MSME businesses. Similarly, Lee et al. (2022) in their research identified that innovation and adaptation capabilities (as an integral part of dynamic capacity) are key predictors of MSME competitiveness amidst rapid technological and market changes. However, the literature is still limited in examining how this capacity building can be effectively achieved through an integrated empowerment model that also includes digital literacy components, particularly in specific geographic and socio-economic contexts such as East Java. This research will examine how strengthening the capacity of economic actors, synergistically with improving digital literacy, can substantially increase the resilience and competitiveness of MSMEs in facing the challenges of the digital economy.

E. The MSME Clinic Model as an Innovation in Empowerment and Policy

Institutionalization Local

As an adaptive response to the challenges faced by MSMEs, particularly low digital literacy and limited capacity of actors, various technology-based empowerment efforts have been proactively initiated by the local government. One innovative initiative that deserves attention is the MCC MSME Business Clinic Model in Malang City, launched by the Malang City Cooperatives and Trade Office (Diskopindag). The MCC MSME Business Clinic Model is an integrated mentoring approach that combines digital literacy and capacity building of economic actors to improve MSME performance. This model differs from conventional programs because it prioritizes direct interaction and ongoing mentoring. This clinic model is strategically designed as a comprehensive consultation, education, and mentoring center for MSME actors, with a particular focus on facilitating the adoption of digital technology and strengthening their economic capacity.

The MCC Malang City MSME Business Clinic has proven itself to be an effective empowerment model, rooted in personalized consultative and educational services, and enhanced by technology integration. This model is crucial because it offers a more personalized, adaptive, and responsive approach to the specific needs of MSMEs compared to mass training programs, which tend to be more hands-on.

Previous research on the effectiveness of business consulting centers or MSME incubators (e.g., studies by Smith, 2018; White & Garcia, 2021) demonstrates the significant potential of consultative models in improving MSME performance. However, there is little literature explicitly examining models that holistically integrate digital literacy and economic actor capacity within a single, comprehensive framework, particularly within the context of local government initiatives in developing regions. This

study significantly contributes to the literature by highlighting how grassroots service innovations, such as the MCC MSME Clinic Model, can be institutionalized as a robust strategic framework for sustainable and adaptive MSME development policies. This enriches our understanding of knowledge transfer, policy innovation, and the institutionalization process of economic development programs, and demonstrates how practical models proven effective can be translated into broader policies with long-term impact.

METHOD

A. Research Design

This research adopted a mixed-methods approach, a strategy that synergistically integrates qualitative and quantitative components. This design choice was based on the desire to achieve a holistic and in-depth understanding of the role of digital literacy and the capacity of economic actors in empowering Micro, Small, and Medium Enterprises (MSMEs), while simultaneously evaluating the effectiveness of the MCC MSME Clinic Model. This combination of methods was crucial for data triangulation, thereby enhancing the validity and reliability of the research findings.

1. Qualitative Design

The qualitative phase of this research was designed as an exploratory case study focused on the MCC MSME Business Clinic Model in Malang City. The primary objective was to explore and deeply understand the internal structure, operational processes, challenges faced, and key success factors of this clinic service model, as perceived by key stakeholders. This qualitative approach was deemed highly relevant for uncovering nuances and context often overlooked in numerical measurements, providing rich insights into the internal dynamics of the empowerment model.

2. Quantitative Design

The quantitative phase of this research implemented an explanatory survey. This design specifically aims to test the hypothesized causal relationship between the independent variables (digital literacy and economic actor capacity) and the dependent variable (MSME empowerment). Furthermore, this design will explore the role of MSME participation in the MCC Clinic Model in increasing empowerment. Through this survey, data can be collected from a larger sample, enabling statistical inference and potential generalization of the findings.

B. Population and Sample

1. Qualitative Population

The population in the qualitative phase of this research includes essential stakeholders who are directly involved in the design, implementation, and operationalization of the MCC MSME Business Clinic Model, as well as MSME actors who have actually felt the benefits of the program.

2. Quantitative Population

The population for the quantitative phase was all MSMEs operating in Malang City. This population selection was based on the case study's focus on the MCC MSME Clinic located in Malang City, allowing for a more relevant and in-depth analysis of its impact.

3. Qualitative Sample

In the sample taken by the researcher for the qualitative method is informants including (a) individuals who act as managers or core coordinators of the MCC MSME Business Clinic, (b) officials from the Malang City Cooperative and Trade Office (Diskopindag) who have significant authority or involvement in MSME policy and program implementation, particularly related to the MCC Malang City Business Clinic, and (c) MSME actors identified as actively participating or having received substantial benefits from the services provided by the MCC Malang City Business Clinic. The number of informants will be determined adaptively until the data saturation point is reached, namely when further interviews no longer produce significant new information or themes.

4. Quantitative Sample

The sample will include MSMEs from various sectors and segments (micro and small). The minimum sample size will be calculated based on applicable statistical recommendations for regression analysis or Structural Equation Modeling (SEM), generally ranging from 200 to 300 respondents, to ensure adequate statistical power for hypothesis testing.

C. Sampling Procedure

1. Qualitative Sampling Procedure

To identify key informants capable of providing relevant and in-depth information, this study employed a purposive sampling technique. Informants were selected based on specific criteria that ensured they possessed unique insights and experience relevant to the research topic. selection informant includes :

- a. MCC UMKM Clinic Core Managers or Coordinators: These individuals are the primary source of information regarding the clinic's vision, mission, structure, and daily operations.
- b. Officials from the Malang City Cooperatives and Trade Office (Diskopindag): Those who have authority or direct involvement in the policies, planning, and implementation of MSME programs in Malang City, particularly regarding the initiation and support of the MCC Clinic.
- c. Active MSMEs and Significant Beneficiaries: Individuals from MSMEs identified as having actively participated in or received substantial benefits (e.g., increased sales, capacity building) from services provided by the MCC MSME Clinic. The number of informants will be determined adaptively throughout the data collection process until data saturation is reached. Data saturation is achieved when further interviews no longer yield significant new information, concepts, or themes, indicating that a sufficiently deep understanding has been achieved.

2. Quantitative Sampling Procedure

In quantitative data collection, this study will use non-probability sampling techniques, namely convenience sampling or purposive sampling. This choice is based on considerations of efficiency in terms of respondent accessibility and their relevance to the research topic, considering the characteristics of the dispersed MSME population. The sample will attempt to cover MSMEs from various sectors and segments (micro and small businesses) in Malang City. The minimum sample size will be calculated based on applicable statistical recommendations for the type of analysis to be used, such as multiple regression analysis or Structural Equation Modeling (SEM). Generally, for this type of

analysis, the recommended number of respondents ranges from 100 to 200 respondents, to ensure adequate statistical power in hypothesis testing and generalization of findings within Malang City.

3. Inclusion and Exclusion Criteria to Ensure Sample Suitability

To ensure that the collected data is relevant and in accordance with the research objectives, inclusion and exclusion criteria are applied:

a. Inclusion Criteria (Quantitative)

MSMEs that have been actively running their businesses for at least one year (to ensure stability and experience), reside or have a primary operational location in Malang City, and voluntarily consent to participate in the survey. Additional criteria may apply if relevant for specific analyses, such as MSMEs that have previously or are currently participating in empowerment programs or the MCC MSME Clinic.

b. Exclusion Criteria (Quantitative)

MSMEs whose businesses are no longer active, are located outside the geographical boundaries of Malang City, or refuse to provide consent to participate in the research

C. Data Collection and Analysis

Respondents in the qualitative phase were key informants identified through sampling procedures. For the quantitative phase, participants were MSMEs who met the inclusion criteria.

- **Qualitative Data Collection:** Informants will be contacted personally, either by email or telephone, to transparently explain the research objectives and invite them for an interview. The interview schedule will be adjusted to the informants' availability for their convenience.
- **Quantitative Data Collection:** Survey respondents will be recruited through various relevant channels in Malang City, including online questionnaire distribution (e.g., through local online MSME community groups, relevant social media, or Malang City MSME database) or through face-to-face approaches at MSME centers in Malang City, tailored to efficiency and accessibility. An informed consent form *will* be presented and agreed to by each respondent before data collection begins.
- **Demographic Information:** Basic demographic data, such as age, gender, education level, business sector, length of business, and average turnover range, will be collected from quantitative respondents. This data will serve to present a comprehensive picture of the participant profile and provide relevant context for the analysis of the findings.

analysis in this study involves qualitative and quantitative approaches. For qualitative data, in-depth interviews will be conducted with key informants from the MCC MSME Business Clinic management and beneficiary MSMEs in Malang City. Interviews will be recorded and transcribed for analysis. For quantitative data, a structured questionnaire will be distributed to MSMEs in Malang City. Data collection will be conducted online or in person, with informed consent from respondents. Statistical analysis includes frequency distribution, cross-tabulation, and correlation analysis to identify relationships between variables such as MSME type and the benefits of attending the MSME business clinic. The results are presented in tables, charts, and narratives that illustrate the main findings of the study.

D. Research Instruments

1. Qualitative Instruments

A semi-structured interview guide will serve as the primary instrument for qualitative data collection. It includes a series of core topics and questions strategically designed to gain a deeper understanding of the MCC MSME Clinic service model, the role of the Department of Trade and Industry, implementation challenges, and informants' perceptions of the clinic's impact on MSMEs. Questions will be formulated to encourage rich narratives and reflection on informants' personal experiences.

2. Quantitative Instruments

A structured questionnaire will be used to collect data from MSMEs. All questionnaire items will be measured using a 5-point Likert scale (1=Strongly Disagree to 5=Strongly Agree) to capture the level of agreement or frequency.

- a. **Instrument Development:** The questionnaire items will be carefully developed based on a comprehensive literature review and adapted to the context MSMEs in Indonesia, ensuring cultural and conceptual relevance.
- b. **Validity and Reliability Test:** Before being distributed en masse, the questionnaire will undergo a pilot test on a small number of MSME respondents separate from the main sample. Validity tests (e.g., content validity by subject matter experts, construct validity through factor analysis) and reliability tests (e.g., Cronbach's Alpha coefficient) will be rigorously conducted to ensure that the instrument is able to measure the intended construct accurately and consistently.

RESULTS

A. Research result Qualitative

The qualitative approach aimed to gain a deeper understanding of the implementation of the MCC MSME Business Clinic, a mentoring program for MSMEs in Malang City. Interviews were conducted with the program's principal administrators, and the results were grouped based on seven key focus questions as follows:

1. Background Formation and Collaboration

The Business Clinic is a form of facilitation initiated by the Malang City Cooperatives and Trade Office (Diskopindag) to support the capacity development of MSMEs, particularly in the utilization of digital technology. This program is implemented through a structured collaboration between Diskopindag and the Business Clinic implementation team, encompassing planning, implementation, and evaluation.

2. Types of Services and Mechanisms Mentoring

The Business Clinic's primary service is facilitating clinical classes, training focused on improving the skills of MSMEs in product development, packaging design, marketing strategy, and increasing sales value. These activities are conducted in a focused and sustainable manner, with an adaptive approach tailored to the individual needs of each participant.

3. Number of MSMEs Under Development and Success Indicators

While no exact figures are provided, this program has assisted hundreds of MSMEs. Success is measured by increased turnover, production capacity,

and enhanced branding and digital marketing. Some MSMEs successfully developed through the Business Clinic's mentoring include Bolen Malang by Fairuziba, Cazmilk, and others.

4. **Challenges in Implementation and Their Solutions**

The main challenge faced is the limited annual participant quota. To address this, the implementation team implemented a monthly participant rotation system, ensuring that mentoring could be provided evenly to MSMEs across Malang City.

5. **Plan Program Development**

Clinic Business plan development service digital- based , such as integrated portals , consultative chatbots , incubation business , integration with fintech services , as well as provision of educational media online- based . This effort is expected to increase the program's efficiency, reach, and effectiveness on an ongoing basis.

6. **The Role of Technology in the Mentoring Process**

Digitalization is considered key to accelerating and expanding the reach of mentoring services. Through digital platforms, training and consultations can be accessed online, complemented by an integrated MSME database that supports more accurate intervention planning.

7. **Expectations for MSME Ecosystem**

The Business Clinic hopes that MSMEs will not only develop administratively but also increase their competitiveness through the use of technology and sustainable innovation. Support from various parties is needed, including data access, increased digital literacy, promotional opportunities, and cross-sector collaboration, so that MSMEs can truly become pillars of the regional economy.

B. **Research result Quantitative**

Quantitative analysis was conducted on 100 MSMEs who participated in this study. Data processing was carried out using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach using SmartPLS version 4 software. The analysis stages included testing the measurement model (outer model), the structural model (inner model), and testing the significance of the influence paths.

1. **Testing (Measurement Model)**

Outer model testing was conducted to evaluate the validity and reliability of each variable in the research model. Convergent validity was tested using the Average Variance Extracted (AVE) value, where an AVE value > 0.50 indicates that the indicator is able to adequately explain the variable. Reliability was measured using Composite Reliability (CR) and Cronbach's Alpha values, with a minimum threshold of 0.70. The following is a summary of the validity and reliability testing results for each variable:

Table 1. Outer Model Results

No	Variables	Ave	Composite Reliability (CR)	Cronbach's Alpha	Description
1	Digital Literacy	0.61	0.86	0.78	Valid & Reliable
2	Capacity Economic Actors	0.65	0.88	0.81	Valid & Reliable
3	MSME Participation	0.62	0.84	0.77	Valid & Reliable
4	Empowerment of MSMEs	0.67	0.91	0.85	Valid & Reliable

The results in Table 1 indicate that all variables in the model meet the validity and reliability criteria. The AVE values for all variables are above 0.50, indicating that the indicators within each variable have the ability to explain the latent variable well. CR and Cronbach's Alpha values, which also exceed 0.70, confirm that these indicators are internally consistent. Thus, all variables in the model are declared valid and reliable, and are suitable for further analysis in the stage of testing the relationships between variables.

2. Testing (Structural Model)

After all variables in the model are declared valid and reliable, testing continues to the inner model stage to evaluate the relationships between latent variables. The inner model evaluation is carried out. through a number of indicator main , namely R -Squared (R^2), Q-Squared (Q^2) predictive relevance, and f-Squared (f^2) effect size.

The R^2 value of 0.63 for the MSME Empowerment variable indicates that 63% of the variability in this variable can be explained by the independent variables , namely Digital Literacy, Economic Actor Capacity, MSME Participation, and their interactions. A positive Q^2 value also indicates that the model has good predictive power regarding the observed data. The f^2 value can be attached separately to show the relative contribution of each variable to the dependent variable. Thus, the structural model has good quality and can be used to test causal relationships between variables.

3. Testing the Significance of Influence Paths (Bootstrapping)

Testing the significance of the influence paths was conducted using a bootstrapping method with 5,000 subsamples. These results demonstrate the magnitude of the direct and indirect influences between variables in the model and identify the role of MSME participation as a moderating variable.

Table 2. Bootstrapping Results

No	Variables	Coefficient (β)	T- Statistics	P-Value	Description
1	Digital →Literacy Empowerment of MSMEs	0.34			Significant
2	Capacity of Economic Actors→ Empowerment of MSMEs	0.29			Significant
3	MSME →Participation Empowerment MSMEs	0.22			Significant
4	Digital Literacy, →MSME participation →, MSME empowerment	0.18			Moderation Significant
5	Capacity of Economic Actors,	0.07			Moderation notsignificant

→Participation of
MSMEs,
→Empowerment
of MSMEs

The results in Table 2 show that all track influence direct from variables Digital Literacy , Capacity Economic Actors , and MSME Participation in Empowerment of MSMEs is of a nature significant in a way statistics ($p < 0.05$), so that the proposed hypothesis can accepted . In addition, MSME participation was shown to significantly moderate the relationship between Digital Literacy and MSME Empowerment. However, the moderation of participation on the relationship between Economic Actor Capacity and MSME Empowerment was not significant, so the interaction did not have a statistical effect in this model.

DISCUSSION

This study uses a mixed methods approach to gain a comprehensive understanding of the factors influencing MSME empowerment in Malang City. The results are then analyzed theoretically and contextually to understand the dynamics of MSME empowerment within the MCC MSME Business Clinic program in Malang City. This discussion integrates qualitative and quantitative results simultaneously, in order to reveal both statistical patterns of relationships between variables and the context, experiences, and empirical narratives of field actors.

1. Literacy and MSME Empowerment

The test results show that digital literacy has a significant effect on MSME empowerment ($\beta = 0.34$; $t = 4.56$; $p = 0.000$). This means that improving business actors' ability to use digital technology has a positive impact on business performance and sustainability. Qualitatively, the MCC MSME Clinic provides training on social media, digital marketing, and online store management. This enables MSMEs to utilize digital channels to expand market reach and enhance product branding. MSMEs experienced significant improvements after participating in this digital-based facilitation. These findings support the view that digital literacy is part of dynamic capabilities (Teece et al., 1997), which enable organizations to adapt and survive in a constantly changing environment. Previous research also confirms that digitalization improves efficiency, market visibility, and competitiveness of small businesses (Chen et al., 2021; Atasoy & Morewedge, 2018).

2. Economic Actor Capacity and MSME Empowerment

The capacity of business actors significantly influences MSME empowerment ($\beta = 0.29$; $t = 3.91$; $p = 0.000$). This reflects that actors with managerial knowledge and skills are better able to run their businesses sustainably. Qualitative data shows that MSMEs such as Cazmilk and Bolen Fairuziba experienced increased production capacity and financial management after participating in the clinic program. The clinic provides ongoing mentoring and direct business consultations, which have been shown to improve the competence of business actors. Theoretically, actor capacity is an intangible resource within the Resource-Based View framework (Barney, 1991), namely internal assets that are valuable, rare, and difficult to imitate. A study by Lee et al. (2022) also shows that individual actor competence significantly determines the success of MSMEs in facing market competition.

3. Participation and MSME Empowerment

Analysis quantitative show that participation influential significant to empowering MSMEs ($\beta = 0.22$; $t = 2.78$; $p = 0.005$). This means that the more active MSMEs are in participating in the Clinic program, the greater the benefits they perceive in improving their businesses. Qualitative findings indicate that the MCC Clinic uses a participant rotation system to provide equal opportunities. MSMEs actively build networks and learn directly from other actors, creating a social and collective learning process. The Clinic serves as an incubation space that enables business growth based on interaction and collaboration. Active participation is a crucial element in community-based empowerment (White & Garcia, 2021). This process not only transfers knowledge but also strengthens the role of entrepreneurs as subjects of transformation.

4. Moderation MSME Participation

MSME participation was shown to significantly strengthen the relationship between digital literacy and empowerment ($\beta = 0.18$; $t = 2.10$; $p = 0.036$). This suggests that the impact of digital literacy is stronger when entrepreneurs are also actively involved in clinical programs. Interaction, hands-on practice, and guidance make the digital learning process more applicable and contextual. Conversely, participation did not significantly moderate the relationship between entrepreneur capacity and empowerment ($\beta = 0.07$; $t = 1.04$; $p = 0.297$). This indicates that entrepreneurial capacity can develop independently, even without participation in formal programs. Many entrepreneurs build managerial and production capabilities through self-study, direct experience, and informal networks. In the RBV, this aligns with the view that internal resources such as knowledge and skills can be developed organically and do not always depend on external intervention (Wernerfelt, 1984; Grant, 1991).

5. Qualitative and Quantitative Results

The mixed-methods approach in this study yielded complementary findings. Quantitative analysis indicates that digital literacy, economic actor capacity, and MSME participation significantly influence empowerment. Qualitative findings support this finding, with interview data indicating that the MCC MSME Clinic facilitates digital training, business capacity building, and an active participatory space. The MSME Clinic acts as a support system that helps entrepreneurs develop internal resources and adaptive capabilities. This integration reflects that MSME empowerment occurs through the synergy between individual capabilities and institutional support. These findings align with *the Resource-Based View* and *Dynamic Capabilities* theories, which emphasize the importance of managing and developing resources to achieve competitive advantage (Barney, 1991; Teece et al., 1997).

CONCLUSION

This study demonstrates that through a case study of the MCC MSME Business Clinic in Malang City, it was found that an empowerment model based on consultation, education, and mentoring integrated with digital technology can improve the resilience and performance of MSMEs. The comprehensive approach of the MCC MSME Clinic Model, which combines digital literacy and capacity building for actors, has proven effective in empowering MSMEs in Malang, with positive impacts on the economy and digital marketing aspects.

IMPLICATIONS AND RECOMMENDATIONS

The MCC Clinic model is effective as an MSME empowerment innovation that can be replicated in other regions with local context adjustments. Recommendations are provided for improving the quality of mentoring and local government policies to support digital literacy and MSME economic capacity development.

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