

Informal Entrepreneurship Education for Women MSME Entrepreneurs: A Process of Women's Empowerment in Coastal Communities

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ABSTRACT

Women play an important role in the economic activities of coastal communities through their involvement in micro, small, and medium enterprises (MSMEs). However, limited access to education, training, financial resources, technology, markets, and business information remains a significant challenge for the development of women-led enterprises. This study aims to explore informal entrepreneurship education as a process of empowering women MSME entrepreneurs in coastal communities of Takalar Regency, Indonesia. This study employs a qualitative approach using a case study strategy. Data are collected through preliminary questionnaires, in-depth interviews, observations, and document analysis. Informants are selected using purposive sampling, involving women MSME entrepreneurs and relevant key informants. Data analysis is conducted using thematic analysis through the stages of transcription, coding, theme development, interpretation, and validation. Preliminary data analysis involving 40 women indicates that 30 respondents (75%) have already owned and managed businesses, while 10 respondents (25%) have not yet established businesses. These initial findings demonstrate the active involvement of women in productive economic activities within coastal communities. Informal entrepreneurship education is considered important because entrepreneurial knowledge and skills are acquired not only through formal education but also through business experiences, non-formal training, mentoring, and social networks. This study is expected to provide contextual insights into the mechanisms through which informal entrepreneurship education strengthens entrepreneurial capacity, access to resources, independence, and economic empowerment among women MSME entrepreneurs in coastal areas.

Keywords: informal entrepreneurship education; women empowerment; MSMEs; coastal women entrepreneurs

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1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in Indonesia's economic development by contributing significantly to economic growth, employment creation, and income distribution. MSMEs represent one of the main pillars of the national economy, particularly in providing employment opportunities and supporting community-based economic activities. Previous studies indicate that MSMEs contributed approximately 59.74% of Indonesia's Gross Domestic Product (GDP) during 2012–2017 and absorbed an average of 97.03% of the national workforce, with micro enterprises accounting for the largest proportion of employment absorption (Suhaili & Sugiharsono, 2019). The dominance of MSMEs is also reflected in their large number of business units, where micro enterprises constitute the majority of Indonesia's MSME sector (Ambarini et al., 2018). Therefore, MSMEs are considered an important instrument for inclusive economic development and poverty reduction (Simon et al., 2020).

The strategic role of MSMEs is also evident in women's economic participation. Women represent a significant proportion of MSME actors in Indonesia, with approximately 64.5% of MSME owners being women (Erwansyah, 2023). This condition demonstrates that women are not only economic beneficiaries but also active contributors to local economic development. In coastal communities, MSMEs are closely connected with local resources and economic activities, including fisheries, marine products, agriculture, trade, and tourism. These sectors provide important livelihood opportunities for coastal households and communities. In Kabupaten Takalar, for example, the fisheries sector remains an important component of the regional economy despite facing various internal and external challenges (Syamsari et al., 2022). Coastal economic activities generally include capture fisheries, aquaculture, seaweed cultivation, fisheries product processing, trading, and marine tourism-related activities (Alaric & Pratama, 2022; Casmiwati et al., 2026; Sarjana et al., 2024).

Women in coastal communities play a significant role in sustaining these economic activities. Their involvement extends beyond domestic responsibilities and includes various productive economic activities such as managing family businesses, processing fisheries products, food production, trading, and other micro-scale enterprises (Astuti & Casmana, 2022; Novianti & Nurkhasanah, 2023; Yusran et al., 2022). In many coastal communities, women occupy a unique position within the household economy, where they complement men's economic roles by managing land-based economic activities while men are often associated with marine-based occupations (Yusuf, 2019). Furthermore, women contribute substantially to fisheries-related activities, particularly in post-harvest processing and marketing sectors (Ambarini et al., 2018).

However, despite their important contribution, women MSME entrepreneurs in coastal areas continue to experience various structural barriers. These challenges include limited access to entrepreneurship knowledge, business skills, financial resources, technology, market information, and business networks (Anillah et al., 2023; Primandaru, 2021). Educational limitations also remain one of the factors affecting women's ability to develop sustainable enterprises (Alaric & Pratama, 2022; Samsir, 2017). In addition, women entrepreneurs frequently encounter difficulties accessing formal financial institutions, resulting in dependence on informal financial sources with higher economic risks (Wijayanti et al., 2021).

In this context, entrepreneurship education becomes an important strategy for strengthening women's entrepreneurial capacity and supporting MSME development. Entrepreneurship education should not be understood solely as formal learning conducted within educational institutions. Entrepreneurial knowledge and skills can also emerge through informal learning processes, including direct business experiences, mentoring, training activities, workshops, interaction with other entrepreneurs, and participation in social networks (Buiney & Wambrauw, 2022; Marwanti et al., 2016; Safrida et al., 2022). As emphasized by Chell (Mahdalena et al., 2022), entrepreneurial competence is developed through active participation and direct engagement in entrepreneurial activities.

Informal entrepreneurship education is particularly relevant for women entrepreneurs in coastal areas because learning processes are often embedded within everyday business practices. Previous studies have demonstrated that entrepreneurship training, product diversification programs, business workshops, mentoring, and community-based assistance can improve entrepreneurial motivation, creativity, and economic independence among coastal communities (Achmad et al., 2020; Buiney & Wambrauw, 2022; Mildaeni et al., 2023; Prawinugraha et al., 2021). Therefore, informal entrepreneurship education can be viewed as a contextual learning process that enables women to acquire knowledge and skills based on their actual business experiences and local economic conditions.

Women's empowerment is a multidimensional process involving improvements in capacity, access, control, participation, and decision-making abilities within social and economic environments. Empowerment does not merely refer to increased income or business ownership but also includes women's ability to acquire knowledge, access resources, participate in decision-making, and strengthen their economic independence (Komalasari et al., 2024). Community empowerment involves providing resources, opportunities, knowledge, and skills that enable individuals to improve their ability to determine their own future and participate actively in society (Siraj et al., 2024).

Previous research has shown that educational empowerment and economic empowerment contribute to women's new venture creation, particularly when supported by entrepreneurial self-efficacy (Primandaru, 2021). Furthermore, entrepreneurship-based empowerment programs have been identified as important mechanisms for improving the welfare of fishing households and strengthening women's economic roles in coastal communities (Mildaeni et al., 2023). Nevertheless, women's empowerment in coastal areas continues to face challenges, including limited participation in decision-making processes and unequal access to economic resources (Hasriyanti & Tabbu, 2022; Tandaju & Kawatak, 2021).

Kabupaten Takalar represents an important context for examining these issues because it possesses coastal characteristics with economic potential in fisheries, marine resources, agriculture, and community-based enterprises. Nevertheless, coastal communities in Takalar continue to experience economic challenges, including limited productivity, restricted access to business capital, and constraints in developing local economic activities (Samsir, 2017). Furthermore, MSMEs in the fisheries sector face various challenges related to human resource capacity, technology limitations, financial constraints, environmental degradation, climate change, pollution, and overfishing (Syamsari et al., 2022). These conditions highlight the importance of strengthening women's entrepreneurial capacity through appropriate and context-specific educational approaches.

Although previous studies have examined entrepreneurship training programs and women's empowerment initiatives, many studies have focused on structured training interventions or top-down empowerment programs (Budimah & Husaniy, 2022; Hartati et al., 2020; Sinay et al., 2022). Limited attention has been given to understanding how women acquire entrepreneurial knowledge naturally through informal learning processes, including business experiences, social interactions, community networks, and everyday problem-solving practices. Therefore, this study aims to explore informal entrepreneurship education as a process of empowering women MSME entrepreneurs in the coastal area of Kabupaten Takalar. The novelty of this research lies in its focus on informal entrepreneurial learning mechanisms and their relationship with women's empowerment within a specific coastal socio-economic context. By employing a qualitative approach, this study seeks to provide a deeper understanding of how women develop entrepreneurial knowledge, strengthen business capacity, access resources, and achieve greater economic independence through informal learning processes.

Based on this background, this study aims to explore the forms of informal entrepreneurship education accessed by women MSME entrepreneurs, examine its influence on entrepreneurial knowledge, skills, and attitudes, identify its contribution to resource accessibility, and understand the challenges and opportunities associated with women's empowerment in the coastal area of Kabupaten Takalar.

2. LITERATURE REVIEW

2.1. Informal Entrepreneurship Education

Entrepreneurship education is a process aimed at developing the knowledge, skills, attitudes, and competencies required for individuals to initiate, manage, and develop business activities. Traditionally, entrepreneurship education has often been associated with formal educational institutions; however, entrepreneurial competencies are not exclusively acquired through classroom-based learning. In the context of Micro, Small, and Medium Enterprises (MSMEs), entrepreneurial learning frequently occurs through practical experiences, interactions with other entrepreneurs, mentoring activities, training programs, and participation in business networks.

Entrepreneurial learning is closely associated with experiential processes, in which individuals develop entrepreneurial competencies through direct involvement in business activities. Entrepreneurs acquire knowledge by facing real business challenges, making decisions, solving problems, and adapting to changing market conditions. Emphasized that entrepreneurial competence is developed through active participation in entrepreneurial practices rather than solely through theoretical learning (Mahdalena et al., 2022).

Informal entrepreneurship education refers to entrepreneurial learning processes that occur outside formal educational structures and are characterized by flexibility, contextual relevance, and experience-based learning. This form of education includes learning by doing, peer learning, mentoring, community interaction, social networking, access to business information and technology, and learning from challenges encountered during business operations (Buiney & Wambrau, 2022; Safrida et al., 2022).

For women MSME entrepreneurs in coastal communities, informal entrepreneurship education becomes particularly important because business knowledge is often embedded within daily economic activities. Women frequently acquire entrepreneurial capabilities through family businesses, interactions with other entrepreneurs, community organizations, training programs, and problem-solving experiences related to production, marketing, financial management, and customer relationships. Previous studies have shown that entrepreneurship training, mentoring, and community-based learning programs contribute to improving entrepreneurial motivation, creativity, and independence among women in coastal areas (Mildaeni et al., 2023; Prawinugraha et al., 2021).

Therefore, informal entrepreneurship education can be understood as a continuous learning process that strengthens not only technical business skills but also entrepreneurial attitudes, confidence, adaptability, and decision-making capacity. In this study, informal entrepreneurship education is conceptualized through several dimensions, including experiential learning, mentoring and assistance, peer learning, social networks, access to information and technology, and learning from business experiences.

2.2 Women's Empowerment

Women's empowerment is a multidimensional process involving the improvement of women's capacity, access to resources, control over decisions, and participation in social and economic activities. Empowerment does not merely refer to increased income or economic participation but also involves the ability of women to make decisions, access opportunities, control resources, and strengthen their position within households and communities.

Kabeer (1999) conceptualized empowerment as a process involving three interconnected dimensions: resources, agency, and achievements. Resources refer to access to material, social, and human resources; agency refers to the ability to make meaningful choices and act upon them; while achievements represent the outcomes resulting from these choices. This framework highlights that empowerment should be understood as a process rather than merely an economic outcome.

In the context of MSMEs, women's empowerment can be observed through their ability to acquire entrepreneurial knowledge, manage business activities, access financial and market resources, participate in decision-making processes, and achieve greater economic independence (Komalasari et al., 2024). Community empowerment initiatives aim to provide individuals with

resources, knowledge, skills, and opportunities that enable them to actively participate in social and economic development (Siraj et al., 2024).

For women in coastal communities, entrepreneurship-based empowerment has become an important approach to improving household welfare and strengthening women's economic roles. Previous research indicates that educational empowerment and economic empowerment contribute to women's entrepreneurial development and new venture creation, particularly when supported by entrepreneurial self-efficacy (Primandaru, 2021). Furthermore, entrepreneurship programs targeted at women in fishing communities have demonstrated positive effects on economic independence and family welfare (Mildaeni et al., 2023).

Nevertheless, women's empowerment in coastal areas continues to face challenges, including limited access to economic resources, unequal participation in decision-making, limited institutional support, and gender-based barriers (Hasriyanti & Tabbu, 2022; Tandaju & Kawatak, 2021). Therefore, empowerment strategies require integrated approaches that combine education, skills development, access to resources, institutional support, and sustainable business networks.

In this study, women's empowerment is examined through four dimensions: capacity development, access to resources, control over economic activities, and participation in decision-making processes.

2.3 MSMEs and Local Economic Empowerment

MSMEs play an essential role in strengthening local economies by utilizing community resources, creating employment opportunities, and generating household income. In developing regions, MSMEs often function as a mechanism for inclusive economic development because they provide economic opportunities for groups with limited access to formal employment.

In coastal communities, MSMEs are closely related to local resource utilization, particularly in fisheries, marine product processing, agriculture, trade, and tourism sectors. These businesses allow communities to transform local resources into economic value while supporting household resilience. In Kabupaten Takalar, fisheries-based economic activities represent an important component of the local economy, although MSMEs continue to face challenges related to human resource capacity, technology adoption, financial limitations, environmental changes, and market access (Syamsari et al., 2022).

For women entrepreneurs, MSMEs provide opportunities to participate in economic activities while utilizing local knowledge and resources. Women's involvement in coastal MSMEs commonly includes fisheries product processing, food production, trading, and household-based enterprises (Astuti & Casmana, 2022; Novianti & Nurkhasanah, 2023). Through these activities, women contribute not only to household income but also to broader local economic development.

However, the sustainability of MSMEs requires more than business ownership. Entrepreneurs need managerial capabilities, financial literacy, access to capital, market networks, technological skills, and institutional support. Limited access to these resources remains one of the major constraints affecting the growth of women-led MSMEs in coastal areas (Anillah et al., 2023; Primandaru, 2021).

Therefore, strengthening MSMEs as instruments of local economic empowerment requires approaches that integrate entrepreneurship education, resource accessibility, mentoring, and community-based support systems. In this perspective, informal entrepreneurship education becomes an important mechanism for enhancing women's entrepreneurial capacity and supporting sustainable MSME development in coastal communities.

3. METHOD

3.1 Research Design

This study employed a qualitative approach using a case study strategy. A qualitative approach was selected because this research aimed to explore and understand women's experiences, perceptions, entrepreneurial practices, and empowerment processes within their specific social

and economic contexts. Qualitative research is appropriate when researchers seek to understand meanings, experiences, and social processes from the perspectives of participants rather than measuring variables quantitatively (Creswell & Poth, 2018).

The case study strategy was selected because the research focused on examining informal entrepreneurship education as an empowerment process among women MSME entrepreneurs in the coastal area of Kabupaten Takalar. Case studies enable researchers to investigate contemporary phenomena within their real-life contexts, particularly when the boundaries between phenomena and context are not clearly separated (Yin, 2018). Therefore, this approach was considered suitable for exploring how entrepreneurial knowledge is acquired, practiced, and transformed into economic capabilities within a specific coastal community.

3.2 Research Location and Informants

The research was conducted in the coastal area of Kabupaten Takalar, South Sulawesi Province, Indonesia. The research location was selected purposively because the area represents a coastal socio-economic environment where community livelihoods are closely related to fisheries, marine resources, agriculture, trade, and small-scale entrepreneurial activities.

The research participants consisted of women MSME entrepreneurs selected through purposive sampling. Purposive sampling allows researchers to intentionally select participants who possess relevant knowledge, experience, and information related to the research phenomenon (Palinkas et al., 2015). This sampling technique was considered appropriate because the study required participants who had direct experiences with MSME activities and informal entrepreneurship learning processes.

The research initially targeted a minimum of 20 women MSME entrepreneurs as primary informants. Additional key informants included entrepreneurship training facilitators, community leaders, and local government representatives involved in MSME development and women empowerment programs.

During the preliminary data collection stage, responses were obtained from 40 women living in the coastal area of Kabupaten Takalar. These initial responses provided an overview of women's economic participation and supported the identification of relevant participants for further qualitative exploration.

3.3 Data Collection Techniques

Data were collected through questionnaires, in-depth interviews, observation, and document analysis. The use of multiple data collection techniques was intended to obtain a comprehensive understanding of informal entrepreneurship education and women's empowerment processes within the coastal MSME context. In qualitative case studies, the use of multiple sources of evidence is important because it enables researchers to examine a phenomenon from different perspectives and strengthen the depth of the findings (Yin, 2018).

An initial questionnaire was administered to obtain preliminary information regarding participants' demographic characteristics, economic activities, and involvement in MSMEs. The questionnaire served as an initial mapping instrument to identify women's economic participation and determine potential participants for further qualitative exploration.

In-depth interviews were conducted to explore participants' experiences, perceptions, and practices related to informal entrepreneurship education and business development. Interviews are an important qualitative data collection technique because they allow researchers to understand participants' interpretations, meanings, and experiences related to a particular phenomenon (Creswell & Poth, 2018).

Observation was conducted to examine informal entrepreneurship education practices within the community, including business activities, interactions among entrepreneurs, learning processes, and community-based support mechanisms. Through observation, researchers were able to capture actual entrepreneurial practices and social interactions that may not be fully revealed through interviews.

Document analysis was also conducted to complement interview and observation data. Relevant documents related to MSME activities, entrepreneurship programs, community empowerment initiatives, and supporting policies were reviewed to provide additional contextual information.

The combination of questionnaires, interviews, observations, and document analysis enabled methodological triangulation and provided a more comprehensive understanding of how informal entrepreneurship education contributes to women's empowerment among MSME entrepreneurs in coastal communities.

3.4 Data Analysis Techniques

The collected data were analyzed using thematic analysis. Thematic analysis was selected because it provides a systematic procedure for identifying, organizing, analyzing, and reporting patterns or themes within qualitative data (Braun & Clarke, 2006).

The analysis process consisted of several stages, including data familiarization, transcription, coding, theme development, interpretation, and report preparation. Initially, interview transcripts, observation notes, and relevant documents were reviewed to obtain an overall understanding of participants' experiences and perspectives. The data were then coded to identify meaningful concepts related to informal entrepreneurship education and women's empowerment. Similar codes were subsequently grouped into broader themes representing the main dimensions of the research, including entrepreneurial learning processes, access to resources, business capacity development, and economic empowerment.

The interpretation process involved connecting the emerging themes with the research objectives and theoretical perspectives regarding informal entrepreneurship education, MSME development, and women's empowerment. The final stage involved presenting the findings in a structured manner to explain how informal entrepreneurship education contributes to the empowerment process among women MSME entrepreneurs in coastal communities.

To ensure the credibility and trustworthiness of the findings, this study applied validation strategies through data comparison from multiple sources, including interviews, observations, questionnaires, and document analysis. The trustworthiness of thematic analysis depends on systematic analytical procedures, transparency in coding decisions, and consistency between collected data and interpreted themes (Nowell et al., 2017).

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Initial Profile of Women's Economic Activities

The initial data processing involving 40 respondents indicated that the majority of women in the coastal area of Kabupaten Takalar were already engaged in economic activities through business ownership or business management.

Table 1. Economic Activities of Respondents

Economic Activity	Number of Respondents	Percentage
Own/manage MSMEs	30	75%
Housewife	5	12.5%
Fisher	3	7.5%
Farmer	2	5%
Total	40	100%

Source: Preliminary research data, 2026.

The data show that 30 respondents (75%) had already owned or managed MSMEs, while 10 respondents (25%) were involved in other economic roles, including being housewives, fishers, and farmers. This finding indicates that entrepreneurial activities have become an important component of women's economic participation in the coastal area of Kabupaten Takalar.

The high proportion of women involved in MSME activities provides an initial indication that women in coastal communities actively participate in productive economic activities. However, this finding only describes women's economic involvement and does not yet fully represent the level of empowerment achieved. Further analysis is required to examine how women acquire entrepreneurial knowledge, access resources, make business decisions, and sustain their economic activities.

4.1.2. Informal Entrepreneurship Education as a Learning Process

The initial findings indicate that women's entrepreneurial knowledge and skills are developed through various learning processes embedded in their daily business activities. Informal entrepreneurship education in this study is not limited to structured training programs but includes learning processes that emerge from direct experiences in managing businesses.

Women entrepreneurs acquire knowledge through practical involvement in business operations, including managing production activities, responding to customer needs, solving business problems, developing products, and adapting to market conditions. These experiences represent informal learning processes in which entrepreneurial competencies are developed through continuous interaction between individuals and their business environments.

The preliminary findings suggest that entrepreneurship learning among women MSME actors in the coastal area of Kabupaten Takalar occurs through experiential processes rather than only through formal educational programs. Business experiences, interactions with other entrepreneurs, community relationships, and exposure to various business challenges become important sources of entrepreneurial knowledge development.

4.1.3. Economic Participation as an Initial Indicator of Women's Empowerment

The finding that 75% of respondents were involved in MSME activities provides an initial indication of strong economic participation among women in the research area. Women's involvement in business activities demonstrates their contribution to household economic activities and local economic development.

Nevertheless, business ownership alone cannot automatically be interpreted as comprehensive empowerment. Women's empowerment requires a broader assessment involving their capacity to manage businesses, ability to make economic decisions, access to financial and market resources, utilization of technology, acquisition of business information, income improvement, and ability to maintain business sustainability.

Therefore, further analysis in this study focuses on understanding empowerment as a multidimensional process rather than merely measuring women's participation in economic activities. The research examines how informal entrepreneurship education contributes to strengthening women's capacities, improving resource accessibility, and increasing their independence in managing MSME activities.

4.1.4. Challenges in Developing Women's Entrepreneurial Capacity

The research implementation generally proceeded according to the planned objectives, although several technical challenges were encountered during the data collection process. One of the main challenges was the adjustment of data collection schedules due to travel time estimation and field accessibility conditions. These challenges were addressed through schedule adjustments and improved task allocation among the research team.

Beyond technical issues, the research identified several substantive aspects requiring further exploration, particularly challenges related to women's access to business resources. These challenges include access to capital, markets, technology, information, family support, business networks, and government assistance programs.

These initial observations indicate that although women in the coastal area of Kabupaten Takalar demonstrate active economic participation, the sustainability and development of their businesses remain influenced by various internal and external factors. Further qualitative analysis is required to understand how these challenges shape women's entrepreneurial learning processes and empowerment outcomes.

4.2. Discussion

The findings of this study demonstrate that women in coastal communities of Kabupaten Takalar play an important role as economic actors through their involvement in micro and small-scale enterprises. The preliminary data obtained from 40 respondents showed that 30 women (75%) had already owned or managed MSMEs. This finding suggests that women's entrepreneurship has become an important component of household livelihood strategies and local economic activities. Rather than being positioned merely as supporting actors within household economies, women in coastal communities actively participate in production, processing, marketing, and business management activities that contribute to economic resilience.

This finding aligns with previous studies highlighting the significant contribution of women in coastal economies. Women in fishing communities are often involved in post-harvest activities, seafood processing, trading, and household-based enterprises that transform local resources into economic value (Hafid & Akhmad, 2024; Novianti & Nurkhasanah, 2023). Their involvement becomes increasingly important because coastal households frequently experience income instability due to fluctuations in fisheries production, environmental changes, and market uncertainty. Consequently, women's entrepreneurial activities represent not only additional sources of income but also adaptive livelihood strategies that strengthen household economic security (Hartati et al., 2020; Mahdalena et al., 2022).

However, the existence of women-owned businesses should not be interpreted as an automatic indication that empowerment has been fully achieved. The findings indicate that economic participation represents an initial stage of empowerment, while deeper empowerment requires improvements in women's capacity, access to resources, decision-making authority, and control over economic activities. This interpretation is consistent with Kabeer's (1999) empowerment framework, which conceptualizes empowerment through the relationship between resources, agency, and achievements. From this perspective, women become empowered not only when they participate in economic activities but when they are able to access resources, make strategic choices, and transform these choices into meaningful outcomes.

This distinction is particularly relevant for women MSME entrepreneurs in coastal areas, where business ownership often develops within contexts of limited access to capital, technology, information, and markets. Previous studies indicate that educational empowerment and economic empowerment contribute significantly to women's entrepreneurial development by strengthening entrepreneurial self-efficacy and supporting new venture creation (Primandaru, 2021). Therefore, assessing women's empowerment requires attention not only to the number of businesses established but also to women's ability to manage, develop, and sustain those businesses independently.

The findings further reveal that informal entrepreneurship education represents a critical mechanism through which women develop entrepreneurial knowledge and skills. In this study, entrepreneurial learning does not primarily occur through formal educational institutions but emerges from daily experiences in managing businesses. Women entrepreneurs learn when they face practical challenges such as fluctuating raw material prices, production difficulties, customer demands, financial management issues, and market competition. These experiences become important sources of knowledge development because entrepreneurs continuously adapt their strategies based on real situations.

This finding supports the concept of entrepreneurial learning, which emphasizes that entrepreneurial competencies are developed through experience, reflection, and interaction with business environments (Cope, 2005; Politis, 2005). Entrepreneurial knowledge is therefore not simply transferred through formal instruction but constructed through continuous engagement with entrepreneurial practices. For MSME actors, particularly those operating in resource-constrained environments, informal learning may be more accessible and relevant because it is directly connected with their daily economic realities.

The importance of experiential learning is also reflected in previous studies conducted in coastal communities. Nafisah et al. (2023) demonstrated that community-based entrepreneurship initiatives involving skill training, mentoring, and direct practice enabled coastal communities to develop creative economic activities based on local resources. Similarly, Husna et al. (2023) showed that vocational and entrepreneurship-based training in maritime sectors can strengthen community capabilities by integrating practical skills, innovation, and business development. These findings reinforce the argument that entrepreneurship education in coastal areas should not be limited to theoretical knowledge but should incorporate practical experiences and contextual learning processes.

In the context of Kabupaten Takalar, informal entrepreneurship education is particularly relevant because local economic activities are closely connected with marine resources and community-based practices. The fisheries sector provides significant economic opportunities but also faces various challenges, including limited technological adoption, financial constraints, human resource limitations, and environmental pressures (Syamsari et al., 2022). Under such conditions, women entrepreneurs develop knowledge through adaptation, experimentation, and problem-solving. These processes represent an important form of entrepreneurial capability development that may not be captured through conventional measures of education and training.

Furthermore, the findings indicate that informal entrepreneurship education is not an individual process but a socially embedded process. Women entrepreneurs obtain knowledge, motivation, and support through interactions with family members, fellow entrepreneurs, community groups, government institutions, and other stakeholders. Social relationships become important channels through which women access business information, exchange experiences, and obtain practical solutions to entrepreneurial challenges.

This finding is consistent with research emphasizing the importance of social networks and community-based learning in entrepreneurship development. Peer learning provides opportunities for entrepreneurs to share experiences, develop confidence, and improve business performance through mutual support (Potter et al., 2023). Similarly, community-based empowerment programs demonstrate that mentoring, institutional support, and knowledge-sharing mechanisms are important elements in strengthening women's entrepreneurial capacity (Safrida et al., 2022). Therefore, entrepreneurship education for women in coastal communities should be designed as a collective learning process rather than merely as individual skills training. The role of local communities and social capital is also important in developing sustainable coastal entrepreneurship. Previous research shows that entrepreneurship models based on local economic potential involve the integration of human resources, local culture, natural resources, innovation, and collaborative partnerships (Kawulur et al., 2019). Community values such as cooperation and mutual assistance provide social foundations that support knowledge exchange and collective problem-solving. In this regard, women's entrepreneurship development should consider existing social structures rather than introducing external programs without adaptation to local contexts.

Despite the strong economic participation identified in this study, women entrepreneurs continue to face challenges related to access to resources. Limited access to capital remains one of the most common barriers affecting MSME sustainability. In coastal areas, insufficient financial resources often limit women's ability to increase production capacity, improve product quality, and expand market reach. Previous studies indicate that empowerment programs become more effective when entrepreneurship training is accompanied by access to financial resources, technical assistance, mentoring, and market development support (Mendo et al., 2024; Pulubuhu et al., 2019).

Another important challenge concerns access to information and digital technology. Digital transformation provides significant opportunities for MSMEs to improve marketing, reach broader markets, and strengthen business efficiency. However, these opportunities require adequate digital literacy and continuous assistance. Coastal communities often experience

technological gaps due to limited infrastructure, insufficient digital skills, and fragmented market access (Arfah, 2026). Therefore, digital literacy should become an integral component of informal entrepreneurship education because contemporary entrepreneurship increasingly depends on the ability to utilize digital platforms and information networks.

The findings also highlight that empowerment programs should move beyond short-term training approaches. Many entrepreneurship programs focus on providing technical skills but lack continuous mentoring, monitoring, and institutional strengthening. Previous studies suggest that sustainable empowerment requires integrated interventions involving education, coaching, networking, market access, and collaboration between communities, government institutions, universities, and private sectors (Dalimunthe et al., 2021; Sulaiman et al., 2019). Such an ecosystem approach is particularly important for women entrepreneurs who often operate within multiple constraints related to household responsibilities, resource limitations, and social expectations.

Overall, this study contributes to the literature by demonstrating that informal entrepreneurship education functions as a continuous empowerment process among women MSME entrepreneurs in coastal communities. The findings extend existing understandings of entrepreneurship education by emphasizing that entrepreneurial learning does not occur exclusively through formal training programs but also through everyday business experiences, community interactions, mentoring relationships, and adaptation to local challenges. In the context of Kabupaten Takalar, women's empowerment through entrepreneurship should therefore be understood as a dynamic process involving knowledge development, resource accessibility, social support, and increased agency in economic decision-making.

From a practical perspective, this study suggests that policies and empowerment programs for women-led MSMEs in coastal areas should recognize informal learning processes as important elements of entrepreneurship development. Supporting ecosystems that facilitate experiential learning, mentoring, digital capacity development, and access to resources may strengthen the sustainability of women's entrepreneurial activities.

5. CONCLUSIONS AND SUGGESTION

5.1. Conclusions

This study concludes that informal entrepreneurship education represents an important process in empowering women MSME entrepreneurs in coastal communities of Takalar Regency. The preliminary findings indicate that women have become active economic actors, with 75% of respondents already involved in owning or managing businesses. This condition demonstrates that women's entrepreneurship has become an important part of household livelihood strategies and local economic activities.

However, women's economic participation through MSMEs should not be understood solely through business ownership. Empowerment is a broader process involving the development of entrepreneurial capacity, access to resources, decision-making ability, and independence in managing economic activities. The findings suggest that informal entrepreneurship education contributes to this empowerment process by providing opportunities for women to acquire entrepreneurial knowledge and skills through practical experiences, non-formal training, mentoring, and social interactions.

The study highlights that entrepreneurial learning among women MSME entrepreneurs in coastal areas occurs through everyday business practices. Experiences in managing production, responding to market challenges, developing products, and maintaining business relationships become important sources of knowledge development. Therefore, informal entrepreneurship education should be viewed not only as a training activity but as a continuous learning process embedded within the social and economic context of coastal communities.

Furthermore, the study emphasizes that women's empowerment through entrepreneurship requires a supportive ecosystem involving community networks, mentoring

systems, access to technology, financial resources, market opportunities, and institutional support. In the context of coastal communities, empowerment strategies should recognize local resources, community values, and existing social networks as important foundations for sustainable entrepreneurship development.

Overall, this study contributes to the understanding of women's entrepreneurship development by highlighting informal entrepreneurship education as a pathway for strengthening women's capacity, agency, and economic independence. The findings provide contextual insights into how entrepreneurial learning processes occur among women MSME entrepreneurs in coastal areas and how these processes contribute to broader empowerment outcomes.

5.2. Suggestion

Based on the findings, several suggestions can be proposed. First, entrepreneurship development programs for women MSME entrepreneurs in coastal areas should move beyond short-term training approaches and develop continuous learning systems that integrate mentoring, practical business assistance, and community-based learning.

Second, government institutions, educational organizations, and community development organizations should strengthen support mechanisms for women entrepreneurs by improving access to business capital, digital literacy programs, marketing networks, and technological resources. These interventions should be designed based on the specific needs and characteristics of coastal communities.

Third, future empowerment programs should emphasize participatory approaches by involving women entrepreneurs as active participants in identifying problems, designing solutions, and evaluating development programs. Such approaches may increase the relevance and sustainability of entrepreneurship empowerment initiatives.

Finally, further research is recommended to explore the long-term impact of informal entrepreneurship education on women's empowerment outcomes, including changes in entrepreneurial self-efficacy, business sustainability, decision-making power, income improvement, and social participation. Comparative studies involving different coastal regions may also provide broader insights into how local contexts influence the effectiveness of informal entrepreneurship education.

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